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PICTURES  
OF  
ARCTIC TRAVEL.

BY

DR. ISAAC I. HAYES,

AUTHOR OF "THE OPEN POLAR SEA," "AN ARCTIC BOAT JOURNEY,"  
"THE LAND OF DESOLATION," "CAST AWAY  
IN THE COLD," ETC.

GREENLAND.

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TO

WARREN SAWYER,

OF BOSTON,

In grateful appreciation of a long and never-failing friendship, this volume is affectionately inscribed by

THE AUTHOR.



## P R E F A C E.

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THIS book is not a narrative of travel. The purpose of the author has been to draw, from personal experience, some pen-pictures of life and nature among the sublime mountains, crags, glaciers, and icebergs of Greenland. His original design was to publish a work of more pretentious size, in three parts, to be entitled, respectively, "Greenland," "Iceland," and "The Arctic Sea;" but, as he found the matter expanding to cumbersome proportions, he has divided the three parts into as many volumes.

NEW YORK, *January*, 1881.

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I.

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THE DOCTOR.

“ WHERE rose the mountains, there to him were friends ;  
Where rolled the ocean, thereon was his home ;  
Where a blue sky, and glowing clime extends,  
He had the passion and the power to roam ;  
The desert, forest, cavern, breaker’s foam  
Were unto him companionship ; they spake  
A mutual language, clearer than the tome  
Of his land’s tongue, which he would oft forsake  
For Nature’s pages glaz’d by sunbeams on the lake.”

BYRON’S CHILDE HAROLD.

PICTURES  
OR  
ARCTIC TRAVEL.

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I.

THE DOCTOR.

As my own fancy led me into the Greenland seas, so chance sent me into a Greenland port. It was a choice little harbor, a good way north of the Arctic Circle, fairly within the realm of hyperborean barrenness—very near the remotest border of civilized settlement. And civilization was exhibited there by unmistakable evidences—a very dilute civilization it is true, yet such as it was outwardly recognizable; for Christian habitations and Christian beings were in sight from the vessel's deck—at least

some of the human beings who appeared upon the beach were dressed like Christians—and veritable smoke curled gracefully upward into the bright air above the roofs of houses from veritable chimneys.

We had been fighting the Arctic ice and Arctic storms for so long a time, that it was truly refreshing to get into this good harbor. The little craft which had borne us thither seemed positively to enjoy her repose as she lay quietly to her anchors on the still waters, in the calm air and blazing sunshine of the Arctic noonday. As for myself, I was simply wondering what I should find ashore. A slender fringe of European custom, bordering native barbarism and its offensive accompaniments, was what I anticipated ; for, as I looked upon the naked rocks which there, as in other Greenland ports, afforded solid foundation for a few straggling huts of native fishermen and hunters, with only now and then a more pretentious white man's lodge, I could hardly imagine that much would be found seductive to the fancy or inviting to the eye. A country where there is no soil to yield any part of man's subsistence seemed to offer such a slender chance for man in the battle of life, that I could well imagine it to

be repulsive rather than attractive. Yet I was eager to see how poor men might be and live.

While thus looking forward to a novel experience, I was unconsciously preparing myself for a great surprise. Whatever there might be of poverty in the condition of the few dozens of human beings who there forced a scanty subsistence from the sea, I was to discover one person in the place who did in no way share it—who, born as it might seem to different destinies, yet, voluntarily choosing wild nature for companionship, and rising superior to the forbidding climate and the general desolation, rejoiced there in his own strong manhood, and lived seemingly contented as well with himself as with the great world, of which he heard from afar but the faintest murmurs.

The anchors had been down about an hour, and the bustle and confusion necessarily attending an entrance into port had subsided. The sails were stowed, the decks were cleared up, and the ropes were coiled. A port watch was set. The crew had received their “liberty,” and there was much wondering among them whether Esquimaux eyes could speak a tender welcome. Nor had the Danish flag been forgotten. That swallow-tailed emblem of a

gallant nationality, which, according to song and tradition, has the peculiar distinction of having

"Come from heaven down,"

was fluttering from a white flag-staff at the front of the government house, and we had answered its display by running up our own Danish colors at the fore, and saluting them with our signal-gun in all due form and courtesy.

Soon after reaching the anchorage, I had dispatched an officer to look up the chief ruler of the place, and to assure him of the great pleasure I should have in calling upon him, if he would name an hour convenient to himself ; and I was awaiting my messenger's return with some impatience, when, suddenly, I heard the thump of his heavy sea-boots on the deck above.

In a few moments he entered the cabin, and reported that the governor was absent, but that his office was temporarily filled by a gentleman who had been good enough to accompany him on board — "the surgeon of the settlement, Doctor Molke," and then stepping aside, Doctor Molke passed through the narrow doorway and stood before me, bowing. I bowed in return, and bade him wel-

come, saying in English, as I suppose, just what any other person would have said under like circumstances, and then turning to the officer, I signified my wish that he should act as interpreter, he being of the same nationality. But that was needless. My Greenland visitor answered me in the language of my country, with as little hesitation as if he had spoken none other all his life ; and, in conclusion, said, "I come to invite you to my poor house and to offer you my service. I can give you but a feeble welcome in this outlandish place, but such as I have is yours ; and if you will accompany me ashore I will be much delighted."

The delight was mutual, and it was not many minutes before we were pulling towards the land, seated in the stern-sheets of a whale-boat.

My new-found friend interested me at once. The surprise at finding myself addressed in English was increased when I discovered that this Greenland official bore every mark of refinement, culture, and high breeding. His manner was wholly free from restraint, and it struck me as something odd, that all the self-possession and ease of a thorough man of the world should be exhibited in this desert place. He did not seem to be at all aware that

there was anything incongruous in either his dress or manner, and his present situation. Yet this man, who sat with me in the stern-sheets of an ice-battered whale-boat, pulling across a Greenland harbor to a Greenland settlement, might, with the simple addition of a pair of suitable gloves, have stepped, as he was, into a ball-room, without giving rise to any other remark than would be excited by his bearing.

His graceful figure was well set off by a neatly fitting and closely buttoned blue frock coat, ornamented with gilt buttons, embroidered and heavily braided shoulder-knots. The Dannebrog cross upon his breast told that he was a favorite with his king. His finely shaped head was covered by a blue cloth cap, having a gilt band and the royal emblems. Over his shoulders was thrown a cloak of mottled seal-skins, lined with the soft and beautiful fur of the Arctic fox. His cleanly shaven face was finely formed and full of force, while a soft blue eye spoke of gentleness and good nature, and, with fair hair, completed the evidences of Scandinavian birth.

My curiosity was soon greatly excited.

"How," thought I, "in the name of everything mysterious, has it happened that such a man should have turned up in such a place?" From curiosity I

passed to amazement as his mind unfolded itself and his tastes were manifested. I was prepared to be received by a fur-clad hunter, a coppery faced Esquimau, or a meek and pious missionary, upon whose face privation and penance had set their seal ; but for this high-bred, graceful, and evidently accomplished gentleman I was not prepared.

I could not refrain from one leading observation. "I suppose, Dr. Molke," said I, "that you have not been here long enough to have yet wholly exhausted the novelty of these noble hills."

"Eleven years, one would think," replied he, "ought to pretty well exhaust anything ; and yet I cannot say that these hills, upon which my eyes rest continually, have grown to be wearisome companions, even if they may appear something forbidding."

Eleven years among these barren hills ! Eleven years in Greenland ! Surely, thought I, this is something "passing strange."

The scene around us as we crossed the bay was indeed imposing, and although desolate enough, was certainly not without its bright and cheerful side. Behind us rose a majestic line of cliffs, climbing up into the clouds in giant steps, picturesque yet solid—

a great massive pedestal, as it were, supporting mountain piled on mountain, with caps of snow whitening their summits, and great glaciers hanging on their sides. Before us lay the town, built upon a gnarled spur of primitive rock, which seemed to have crept from underneath the lofty cliffs as a serpent from its hiding place, and after wriggling through the sea, to have stopped at length when it had almost completely inclosed a beautiful sheet of water about a mile long by half a mile broad, leaving but one narrow winding entrance to it. Through this entrance the swell of the sea could never come by any chance to disturb the silent bay which lay there, nestling among the dark rocks beneath the mountain shadows as calmly as a Swiss lake in an Alpine valley.

But the rocky spur which supported on its rough back what there was of the town wore a most woe-begone and distressed appearance. A few little patches of grass and moss were visible, but generally there was nothing to be seen but the cold, gray-red, naked rocks, broken and twisted into knots and knobs, and cut across with deep and ugly cracks. I could but wonder that, on such a dreary spot, man should ever think of seeking a dwelling-place.

My companion must have interpreted my thoughts, for he pointed to the shore, and said playfully, "Ah, it is true you behold at last the fruits of wisdom and instruction—a city founded on a rock." And then, after a moment's pause he added, "Let me point out to you the great features of the new wonder. First to the right there, underneath that little low black peaked roof, dwells the royal cook—a Dane who came out here a long time ago, married a native of the country, and rejoices in a brood of half-breed children, among whom are four girls, rather dusky, but not ill-favored. Next in order is the government house, that pitch-coated structure near the flag-staff. This is the only building, you observe, that can boast of a double tier of windows. Next, a little higher up, you see, is my own lodge, bedaubed with pitch to protect it against the assaults of the weather, and to stop the cracks. Down by the beach, a little farther on, that largest building of all is the storehouse, where the governor keeps all sorts of traps for trade with the natives, and where the shops are in which the cooper puts together the oil barrels before the arrival of the Danish ship, and where other like industrial pursuits are carried on. A little farther down, you observe a

low structure where the oil is stored. On the ledge above the shop you see another pitchy building. This furnishes quarters for the half-dozen Danish employees—fellows who, not having married native wives, hunt and fish for the glory of Denmark. Near the den of these worthies you observe another, a duplicate of that in which lives the cook. There resides the royal cooper, and not far from it are two others, not quite so pretentious, where dwell the carpenter and blacksmith, all of whom have followed the worthy example of the cook, and have dusky sons and daughters to console their declining years. You may, perhaps, be able to distinguish a few moss-covered hovels dotted about here and there; perhaps there may be twenty of them in all, though there are but few in sight. These are the huts of native hunters. At present they are not occupied, for, being without roofs that will turn water, the people are compelled to abandon them when the snow begins to melt in the spring, and betake themselves to seal-skin tents, some of which you observe scattered here and there among the rocks. And now I've shown you everything, just in time too, for here we are at the landing."

We had drawn in close to the end of a narrow

pier run out into the water on slender piles, and now, quickly ascending some steps, the doctor led the way up to his house. The whole settlement had turned out to meet us—men, women, children, and dogs, which latter, about two hundred in number, little dogs and all, set up an ear-splitting cry, wild, and strangely in keeping with every other part of the scene, and, like nothing so much as the dismal evening concert of a pack of wolves. The children, on the other hand, kept quiet, and clung to their mothers, as all children do in exciting times. The mothers grinned, and laughed, and chattered, as becomes the gentler sex in the savage state, while the men, all smoking short clay pipes (one of their customs borrowed from civilization) looked on with that air of stolid indifference peculiar to the male barbarian. They were mostly dressed in seal-skins, but some of them wore greasy Guernsey frocks and other European clothing. Many of the women carried cunning looking babies strapped upon their backs in seal-skin pouches. The heads of men and women alike were for the most part capless, but every one of the dark, beardless faces was surmounted by a heavy mass of straight uncombed and tangled jet black hair. There were some half-

breed girls, standing in little groups upon the rocks, who, adding something of taste to the simple need of an artificial covering for the body, were attired in dresses which, although of the Esquimaux fashion, were quite neatly ornamented.

While passing through this curious crowd, the eye could not but find pleasure in the novel scene, the more especially, as the delight of these half-barbarous people was excited to the highest pitch by the strange being who had come among them.

But if what the eye drank in gave delight, less fortunate the nose ; for from about the store-house and the native huts, and indeed from almost everywhere, welled up that horrid odor of decomposing oil and flesh peculiar to a fishing-town. On this account, if on no other, I was not sorry when we arrived at our destination.

" You like not this Greenland odor," said my conductor. " Luckily it does not reach me here, or I should seek a still higher perch to roost on," saying which he opened the door and led the way inside, first through a little vestibule into a square hall, where we deposited our fur coats, and then to the right into a small room, furnished with a table, an old pine bench, a single chair, a case with glass

doors, containing white jars and glass bottles, having Latin labels, and smelling dreadfully of doctor's stuffs.

"I always come through here," said my host, "after passing the town. It gives the olfactories a new sensation. This you observe is the place where I physic the people."

"Have you many patients, Doctor?" I inquired.

"Not very many; but, considering that I go sometimes a hundred miles or so to see the suffering sinners, I have quite enough to satisfy me. Not much competition, you know. But come, we have some lunch waiting for us in the next room, and Sophy will be growing impatient."

A lady, eh?

The room into which the Doctor ushered me was neatly furnished. On the walls were hung some prints and paintings of fruits and animals and flowers, and in the center stood a small round table covered with dishes carefully placed on a snowy cloth.

All very nice, but who's Sophy?

The Doctor tinkled a little bell, the tones of which told that it was silver, and then, all radiant with smiles and beaming with good-nature, Sophy entered. A strange apparition!

"This is my housekeeper," said the Doctor in explanation, "speak to the American, Sophy."

And without embarrassment or pausing for an instant she advanced and bade me welcome, addressing me in fair English, while extending at the same time a delicate little hand which peeped out from under cuffs of eider-down.

"I am glad," said she, "to see the American. I have been looking through the window at him ever since he left the ship."

"Now, Sophy," said the Doctor, "let us see what you have got for lunch."

"Oh, I haven't anything at all, Doctor Molke," answered Sophy, "but I hope the American will excuse me until dinner, when I have some nice trout and venison."

"Pot-luck, as I told you," exclaimed my host. "But never mind, Sophy, let's have it, be what it may." And Sophy tripped lightly out of the room to do her master's bidding.

"A right good girl that," said the Doctor when the door was closed. "Takes capital care of me."

Strange Sophy. A pretty face of dusky hue, and a fine figure attired in native costume, neatly ornamented and arranged with cultivated taste. Panta-

loons of mottled seal-skin and of silvery luster, tapered down into long white boots which inclosed the neatest of ankles and daintiest of feet. A little jacket of Scotch plaid, with a collar and border of fur, covered the body to the waist, while from beneath the collar peeped up a pure white cambric handkerchief covering the throat ; and heavy masses of glossy black hair were intertwined with ribbons of gay red. Marvelous Sophy ! Dusky daughter of a Danish father and a native mother. From her mother she had her rich brunette complexion and raven hair ; from her father Saxon features and light blue Saxon eyes.

If the housekeeper attracted my attention, so did the dishes which she set before me. Smoked salmon of exquisite delicacy ; reindeer sausages, reindeer tongues, nicely dried and thinly sliced, and fine fresh Danish bread made up a style of "pot-luck" calculated to cause a hungry man from the high seas and sailors' "grub," to wish for the same style of luck for the remainder of his days. But when all this came to be washed down with the contents of sundry bottles with which Sophy dotted the clean white cloth, the luck was perfect, and there was nothing further to desire.

"Ah, here we are," said my entertainer. "Sophy wishes to make amends for the dryness of her fare. This is a choice Margaux, and I can recommend it. But, Sophy—here, you haven't warmed this quite enough. Ah, my dear sir, you experience the trouble of a Greenland life. One can never have his wines properly tempered."

One cannot have his wines properly tempered ! And this is the trouble of a Greenland life ! "Surely," thought I, "one might find something worse than this."

"Here," picking up the next bottle, "we have some Johannisberg, very fine, as I can assure you; but I have little fancy even for the best of these Rhenish wines. Too much like a pretty woman without a soul. They never warm the imagination. There's something better to build upon there, close beside your elbow. Since the claret's forbidden us for the present, I'll drink you welcome in that rich Madeira. Why, do you know, sir," rattled on the Doctor, as I passed the bottle, seemingly rejoiced in his very heart at having some one to talk to, "do you know, sir, that I have kept that by me here these ten years past ? My good old father sent it to me as a mark of special favor. It

has a pedigree as long as one of Lockley's cloth-yard shafts. But the pedigree will keep ; let's prove the bottle ; " and he filled up two dainty French straw-stem glasses, and pledged me in good old Danish style. Then, when the claret came back, this time all rightly tempered, the Doctor filled the glasses and hoped that when I left the place the girls would pull lustily on the tow-ropes.

Hunger and thirst were soon appeased. " And now," said the Doctor, when this was done, " I know you are dying for the want of something fresh and green. You have probably tasted nothing that grew out of dear old Mother Earth since leaving home ; " and he tinkled his little silver bell again, and Sophy of the silver seal-skin pantaloons and dainty snow-white boots tripped softly through the door.

" Sophy haven't you a surprise for the American ? "

Sophy smiled knowingly as she answered " Yes, " while she retreated. In a moment she came back, carrying a little silver dish with a little pyramid of green upon it. Out from the green peeped little round red globes—radishes, as I lived ! Round red radishes ! Ten round red radishes !

" What ! radishes in Greenland ! " I exclaimed, involuntarily.

"Yes, and raised on my own farm, too! You shall see it by and by." The Doctor was enjoying my surprise, and Sophy looked on with undisguised satisfaction. Meanwhile I lost no time in tumbling the pyramid to pieces, and crunching the delicious bulbs. They disappeared in a twinkling. Their rich and luscious juices seemed to pour at once into the very blood, and to tingle at the very finger-tips. I never knew before the full enjoyment of the fresh growth of the soil. After so long a deprivation (more than a year), it was indeed a strange, as it will remain a lasting, sensation. Never, to my dying day, shall I forget the ten round red radishes of Greenland!

"You see that I was right," exclaimed my host, after the vigorous assault was ended. "And now," continued he, addressing Sophy, "bring the other things."

The other things proved to be a plate of fine lettuce, a bit of Stilton cheese, and coffee, in transparent little china cups, and sugar in a silver bowl, and then cigars—everything of the best and purest—and as we passed from one thing to another, I became persuaded that the Arctic Circle was a myth, that my cruise among the icebergs was a dream, and

that Greenland was set down wrongly on the maps. Long before this I had been convinced that Doctor Molke was a most mysterious character, and wholly unaccountable.

After we had finished this sumptuous lunch, and chatted for a while, the Doctor surprised me again by asking if I would like a game of billiards. Billiards in Greenland, as well as radishes! "But first," said he, "let us try this sunny Burgundy. Ah, these red wines are the only truly generous wines. They monopolize all the sensuous glories and associations of the fruit. With these red wines one drinks in the very soul and sentiment of the lands which grow the grapes that breed them."

"Even if drank in Greenland!"

"Yes, or at the very pole. Geographical lines may confine our bodies, but nature is an untamed wild where the spirit roams at will. If I am here hemmed in by barren hills, and live in a desert waste, yet, as one of your sweetest poets has put it, my

'Fancy, like the finger of a clock,  
Runs the great circuit, and is still at home.'

And truly I believe that I have in this retreat about

as much enjoyment of life as they who taste of it more freely; for, while I can here feel all the world's warm pulsations, I am freed from its annoyances. If the sweet is less sweet, the bitter is less bitter. But—Well, let's have the billiards."

My host now led the way into the billiard-room, which was tastefully ornamented with everything needful to harmonize with a handsome table standing in its center, upon which we were soon knocking the balls about in a very lively manner. I was much surprised at the skillfulness of his play, and expressed myself accordingly. I thought it something singular that he should there find any one to keep him so well in practice.

"Ah, my dear sir," he replied, "you have yet much to learn. This country is not so bad as you think for. Sophy, native born Sophy, is my antagonist, and she beats me three times out of five." Wonderful Sophy !

The game finished, my host next led the way into his study—a charming retreat as ever human wit and ingenuity devised. It was indeed rather a parlor than a study. The room was large, and was literally filled with odd bits of furniture, elegant and well kept. Heavy crimson curtains were

draped about the windows ; a rich crimson carpet covered the floor, and there were lounges and chairs of various patterns adapted for every temper of mind and mood of body, all of the same pleasing color. Odd *étagères*, hanging and standing, and a large solid walnut case were all well filled with books, and other books were carefully arranged on a table in the center of the room. My eye quickly detected the works of various English and American authors, conspicuous among which were Shakespeare, Byron, Scott, Dickens, Cooper, and Washington Irving. Sam Slick had a place there, and close beside him was the renowned Lemuel Gulliver ; and, in science, there were, besides many others, Brewster, Murchison, Agassiz, and Lyell. The books all showed that they were well used, and they embraced the principal classical stores of the French and German tongues, besides the English and his own native Danish. In short, the collection was precisely such as one would expect to find in any civilized place where means were not wanting, the disposition to read a habit and a pleasure, and the books themselves boon companions.

A charming feature of the room was the air of refreshing *négligé* with which sundry robes of bear

and fox skins were tossed about upon the chairs and lounges and upon the floor, while the blank spaces of the walls were broken by numerous pictures, some of them apparently family relics, and on little brackets were various souvenirs of art and travel.

"I call this my study," said the Doctor, "but in truth there is the real shop," and he led me into a little room adjoining, in which there was but one window, one table, one chair, no shelves, a great number of books lying about in every direction, and great quantities of paper. On the wall were hung about two dozen pipes of various shapes and sizes, and a fine assortment of guns and rifles, and all the paraphernalia of a practiced sportsman. It was easy to see that there was at least one place where the native-born Sophy did not come.

The chamber of this singular Greenland recluse into which he next conducted me, was in keeping with his study. The walls were painted light blue, a blue carpet adorned the floor, blue curtains softened the light which stole through the windows from the south, and blue hanging cast a pleasant hue over a snowy pillow. Although small, there was indeed nothing wanting, not even a well-ar-

ranged bath-room—nothing that the most fastidious taste could covet or desire.

“And now,” said my entertainer, when we had got back into the study, “does this present attractions sufficient to tempt you from your narrow bunk on shipboard? You are most heartily welcome to that blue den which you admire so much, and which I am heartily sick of, while I can make for myself a capital shake-down here, or *vice versa*. If neither of these will suit you, then cast your eyes out of the window and you will observe something out of which to fashion a more truly Arctic lodging.”

I stepped to the window, and there, sure enough, piled up beneath it and against the house was a bank of snow, which the summer’s sun had not yet dissolved, and as I saw this, and then looked beyond it over the wretched little village, and the desolate waste of rocks on which it stood, and then on up the craggy steeps to the great white-topped mountains, I could but wonder what strange event of fate or fortune had sent this luxury-loving man, with books only for companions, into such a howling wilderness. Was it his own fancy, or was it some cruel necessity? In truth, the surprise was so great that I found myself suddenly turning from the

scene outside to that within, not indeed without an impression that the whole thing might have vanished in the interval as the palace of Aladdin in the Arabian tale.

My host was watching me attentively, no doubt reading my thoughts, for, as I turned round, he asked if I liked the contrast. To be quite candid, I was forced to own myself greatly wondering that a "den" so well fitted for the latitude of Paris, should be stumbled upon away up here so near the pole.

"Hardly in keeping with the 'eternal fitness of things,' eh, as Square would say?"

"Precisely so."

"You think then because a fellow chooses to live in barbarous Greenland, he must needs turn barbarian."

"Not exactly that, but we are in the habit of associating the appreciation of comfort and luxury, or what we call the æsthetic side of life, with the desire for social intercourse, certainly not with banishment like this."

"Then you would be inclined to think there is something unnatural, in short mysterious, in my being here, tastes, fancies, inclinations, and all."

"I confess it would strike me so if I took the liberty to speculate upon it."

"Very far from the truth, I do assure you. I am not obliged to be here any more than you are. I came from pure choice, and am at liberty to return when I please, like yourself, only with this difference, that while I must remain a year, you can give your little schooner wings at any moment, and flee home just when it suits you. In truth, I do go home with the ship to Copenhagen once in three or four years, and spend a winter there, living the while in a den much like what you here see, but I am always glad enough to get back again. The salary which I receive from the government does not support me as I live, so you see that is not a motive. But I am perfectly independent, have capital health, lots of adventure, hardship enough (for you must know that if I do sleep under a sky-blue canopy, I am esteemed one of the most hardy men in all Greenland) to satisfy the most insatiate appetite and perverse disposition."

"Sufficient reason, I should say, for a year or so, but hardly, one would think, for a lifetime."

"Why not?"

"Because the novelty of adventure wears off

in a little time. Good health never yields us satisfaction, for we do not give it thought until we lose it. So that can never be an impelling motive, and as for independence, what is that when one can never be freed from himself? However, I am only curious, not critical."

"But, my dear sir, you forget these shelves. Those books are my friends. Of them I never grow weary; they never grow weary of me. We understand each other perfectly. They talk to me when I would listen, they sing to me when I would be charmed, they play for me when I would be amused. Ah! sir, this country is great, as all countries are great, each in its way; and this is a great country to read books in. Upon my word, I wonder everybody don't fill ships with books and come up here, burn the ships as did the great Spaniard, and each spend the remainder of his days in devouring his shipload of books. In this fancy of mine you may perhaps imagine that you find something quite peculiar, but I assure you it is nothing of the kind. Each one to his taste, you know, and, like every body else, of course I think mine the best. Another of your poets, Henry Taylor I think, must have had some notion of this sort in his mind when he wrote,

‘ We figure to ourselves  
The thing we like, and then we build it up  
As chance will have it, on the rock or sand ; ’

and so you see that I have built in fact as well as fancy on the rock.”

I could not help being pleased with this novel way in which my host viewed his situation and exhibited his desires ; and I amused him greatly when I told him so. Then I said, “ Truly a pretty picture you have drawn of the country, and of the wonderful uses to which it may be put ; but let me ask you, how often do books reach you ? ”

“ Once a year, when the Danish ship comes out to bring us bread, sugar, coffee, coal, and such like things, and to take home the few trifles, in the shape of furs, oil, and fish, which the natives have gathered in the interval.”

“ Books to the contrary, I should say the ship would not return more than once without me, were I in your situation.”

“ So you would think me a sensible fellow, no doubt, if I would pick up this box and carry it off to Paris or Copenhagen, or may be to New York ? ”

“ That’s exactly what I was thinking, or rather, it

would certainly have appeared to me more reasonable if you had built it there in the first instance."

"Quite the contrary, I do assure you ; quite the contrary. Indeed, I can prove to your entire satisfaction that I am a very sensible man ; but wait until I have shown you all my possessions. Will you look at my farm ? "

Farm ! well this was, after all, exhibiting some claims of the country to the consideration of a civilized man. A farm in Greenland was something I was hardly prepared for.

The Doctor now led the way to the rear of the house, into an inclosure about eighty feet square, surrounded by a high board fence.

"This is my farm," said the Doctor.

"Where ? "

"Here, look ; it isn't a large one." And he pointed to a patch of earth about thirty feet long by four wide, inclosed with boards and covered over with glass. Under the glass were growing lettuce, radishes, and pepper-grass, all looking as bright and fresh and green and well contented as if they, like the man for whose benefit they grew, cared little where they sprouted, so they only grew. The ten round red radishes of the recent luncheon were accounted for.

"So you see," exclaimed the Doctor, "something besides a lover of books can take root in this country. Are you not growing reconciled to it? To be sure, they are fed on pap from home, but so does the farmer who cultivates them get his books from the same quarter."

"How is that? Do you mean to say you bring the earth they grow in from home?"

"Even so. This is good, rich Jutland earth, brought in barrels by ship from Copenhagen."

An imported farm! One more novelty.

"Now you shall see my barn," and we passed over to a little, tightly-made building in the opposite corner, where the first sound that greeted my ears was the bleating of goats and the grunting of pigs, and as the door was opened I heard the cackling and flutter of chickens. Twenty chickens, two pigs, and three goats.

"All brought from Copenhagen with the farm," and the Doctor began to talk to them in a very familiar manner in the Danish tongue. They all recognized the kindly voice of their master, and flocked around him to be fed, and while this was being done I observed that he provided for the safety of his pets by securing in the center of their

house a large stove, which was now cold, but which in the winter must give the animals abundant heat. And so the Doctor, besides his round red radishes and his fresh butter, had pork and milk and eggs of native growth !

The next object of interest to attract attention was the Doctor's smoke-house then in full operation. This was simply a large hogshead, one head pierced with holes and the other head knocked out. The end without a head was set upon a circle of loose stones, which supported it half a foot above the ground, and inside of this circle a great volume of smoke was being generated, and which came puffing out through the holes in the head above. Inside of this simple contrivance were suspended a number of fine salmon, the delicate flesh of which was being dried by the heat and penetrated by the sweet aroma of the smoke. The smoke arose from a smouldering fire of the leaves and branches of the andromeda (*Andromeda tetragona*) the heather of Greenland—a trailing plant with a pretty purple blossom, which grows in sheltered places in great abundance. Besides moss, this is the only vegetable production of North Greenland that will burn, and it is sometimes used by the natives for fuel after it is dried by the

sun, for which purpose it is torn up and spread upon the rocks in the summer time. The perfume of the smoke is really delicious, which accounts for the excellent flavor of the salmon which the Doctor had given me for lunch. Nothing of its kind could possibly exceed the delicacy of the fish thus prepared.

The inspection of the Doctor's garden, or "farm" as he facetiously called it, occupied us during the remainder of the afternoon, and so novel was everything to me, from the Doctor down to his vegetables and perfumed fish, that the hours passed away unnoticed, and I was quite astonished when Sophy came to announce dinner.

We were soon seated at the table where we had been before, and Sophy served the meal. Her soup was excellent ; the trout, from a neighboring mountain stream, were of fine quality and well cooked ; the haunch was done to a turn ; the wines were this time rightly tempered ; the champagne needed not to be iced ; more of the round red radishes appeared in season ; and then followed lettuce, and cheese, and coffee, and then we found ourselves at another game of billiards, and at length were settled for the evening in the Doctor's study, one on either side of a

table, on which stood all the ingredients of an arrack punch, and in their midst a bundle of cigars.

Our conversation, naturally enough, ran upon the affairs of the big world on the other side of the Arctic Circle, upon its politics, and literature, and science, and art, passing lightly from one to the other, lingering now and then over some book which we had mutually fancied. I found my companion perfectly posted up to within a year, and inquired how he managed things so well.

"Ah! you must know," answered he, "that is a clever little illusion of mine. I'm always precisely one year behind the rest of the world. The Danish ship brings me a file of papers for the past twelve months, the principal reviews and periodicals, the latest maps, such books as I have sent for during the year, and besides this the bookseller and my other home friends make me up an assortment of what they think will please me. Now, you see, in devouring this I pursue an absolute method. The books, of course, I take up as the fancy pleases me, but the reviews, periodicals, and newspapers, I turn over to Sophy, and the faithful creature places on my breakfast table, every morning, exactly what was published that day one year before. Clever, isn't it?"

You see I get every day the news, and go through the drama of the year with perhaps quite as much satisfaction as they who live the passing day in the midst of the occurring events. Each day's paper opens a new act in the play, and what matters it that news is one year old? It is none the less news to me, and, besides, are not Gibbon, Shakespeare, and Mother Goose still more ancient?"

I could but smile at this ingenious device, and the Doctor, seeing plainly that I was deeply interested in his novel mode of life, loosened a tongue, which, in truth, needed little encouragement, and rattled away over the rough and smooth of his Greenland experiences, with an enjoyment on his part perhaps scarcely less than mine, for it was easy to see that his love of wild adventure kept pace with his love of comfort, and that he heartily enjoyed the exposures of his career, and the reputation which his hardihood had acquired for him. I perceived, too, that he possessed a warm and vivid imagination, and that, clothing everything he saw and everything he did with a fitting sentiment of strength or beauty, he had blended wild nature and his own strange life into a romantic scheme, which completely filled his fancy leaving, apparently at least, nothing unsupplied;

and this he enjoyed to the very bottom of his soul.

The hours glided swiftly away, as we sat sipping our punch and smoking our cigars, in that quaint study of the Doctor's, chatting of this and of that, and a novel feature of the evening was that, as we talked on and on, the light grew not dim with the passing hours; for when the hand of a Danish clock which ticked above the mantel told nine, and then ten, and then eleven o'clock, it was still broad day, and at length, in the full blaze of sunshine, the clock rang out the witching hour of midnight. The sun, low down upon the northern horizon, poured his bright rays over the hills and sea, throwing the dark shadow of the mountains upon the town, but illuminating everything to right and left with that soft and pleasant light, which we so often see at home in the early morning of the spring.

After the clock had struck twelve, we threw our fur cloaks over our shoulders, and strolled out into this strange midnight. Passing through the town, I remarked the quiet which everywhere prevailed, and how all nature seemed to have caught the inspiration of the hour. Not a soul was stirring abroad. The dogs crouching in clusters were all asleep, and it

seemed as if my little vessel lay under the shadows of the cliffs with a consciousness that midnight is a solemn thing, even in the sunshine. And never did the sun shine more brightly, and never did a more brilliantly illuminated landscape give evidence of day. But wearied nature had sought repose, even though no sable cloud with silver lining turned upon the world its darkening shadow, for the hour of rest was come.

Walking on over the rough rocks, we came at length upon the sea, and I noticed that the very birds, which were wont to paddle about in great flocks upon the waters, or fly gayly through the air, had crawled upon the shore, and, tucking their heads beneath their wings, had gone to sleep. Even the little flowers and blades of grass seemed to droop, as if wearied with the long hours of the day; and, defying the restless sun to rob them of their natural repose, had fallen to sleep with the beasts and birds. The very sea itself appeared to have caught the infection of the hour—dissolving in its blue depths the golden clouds of day.

The night was far from being cold, and selecting the most tempting and sunny spot, we sat down upon a rock close beside the sea, watching the gen-

tle wavelets playing on the sand, and the changing light as the sun rolled on, glistening upon the hills and upon the icebergs which, in countless numbers, lay upon the watery plain before us, like great monoliths of Parian marble waiting as if but for the sculptor's chisel to stand forth in fluted pillar and solid architrave—floating Parthenons and Pantheons and Temples of the Sun.

The scene was favorable to the conversation, which had been broken off when we left the study, and the Doctor came back to it of his own accord. I was much absorbed with the grandeur of this midnight scene, and had remained for some time quiet. My companion, breaking in abruptly, said, "I think I promised to prove to you that I am the most sensible fellow alive. Now let me tell you, to begin with, that I would not exchange this view for any other I have ever seen. It is one of which I am very fond, for, at this hour, the repose which you here see is frequently repeated; and, to compare big things with little, it might be likened to some huge lion sleeping over his prey, which he is not yet prepared to eat—quick to catch the first sound of movement. There is something truly terrible in this untamed nature. Man's struggle here gives him

something to rejoice in, and I would not barter it for the effeminate life to which I should be destined at home, on any account whatever. Perhaps, if I should there be compelled absolutely to earn my daily bread, the case might be different, for enforced occupation is quite too sober an affair to give time for much reflection. But I should, most likely, lead an idle sort of existence there, and should simply live without, so far as I can see, a motive. I should encounter few perils, have few sorrows, fewer disappointments, and want for nothing—nothing indeed but temptation to exert myself, or prove my own manhood in its strength, or enjoy the luxury of risking the precious breath of life, which is so little worth, and which is so easily knocked away. You have seen one side of me—how I live. Well, I enjoy life, and make the most of it after my own fashion, as everybody should do. If it is a luxurious fashion, as you are pleased to think, it but gives me a keener relish for the opposite ; and, that it does not unfit me for encountering the hardships of the field, is proved by the reputation for endurance which I have among the natives. If I sleep between well-aired sheets one night, I can coil myself up among my dogs on the ice-fields the next, and sleep there

as well. I care not if it's as cold as the frigid circle that Dante tells of so satisfactorily. If I have a *penchant* for Burgundy, and like to drink it out of French glass, I can drink train-oil out of a tin cup when I am cold and hungry, and never murmur. I like well-fitting clothes, but rough furs suit me just as well—that is, in season. Why, it would make you fairly laugh to see these people here, countrymen of mine, with whom I sometimes travel, who never tasted Burgundy in all their lives, and would rather have one keg of Danish corn brandy than a whole tun of it, and who never took their frugal fare off anything more tempting than tin. Do you think that these people can, under any circumstances, be induced to strengthen their bodies with eating blubber, as I often do when traveling in the cold? Not a bit of it! Do you think they can be persuaded to sleep outside of their own wretched lodgings, without groaning and everlastinglly desiring to get back again? Not they!"

When the Doctor had finished this half soliloquy, I could not help asking what had impelled him to the life of solitude and exposure of which he had clearly grown so fond.

"The motives are various," he answered, "but

before we say anything under that head, let me revert to a word which you have just let fall, and which you have, perhaps, not duly considered the value of."

I asked him what it was.

"Solitude."

"But, surely," I replied, "the word can hardly fail to suit a description of this place."

The Doctor shrugged his shoulders while playfully answering, "Evidently all my talk about books, and the pleasure I have in them, has been quite thrown away, and my sweetness has been 'wasted on the desert air.' Perhaps you may have seen upon my shelves a rather fine edition of Lord Byron. Of all the poets he is my favorite, when describing wild nature. Why, what do you think would have been his handling of this grand midnight scene—these glorious cliffs, these snow-clad mountains, these glittering icebergs, glaciers, midnight sun—he who could behold the comparatively insignificant ice streams of the Alps, and call them 'palaces of nature,' where eternity sat throned in 'icy halls of cold sublimity,' and write so grandly about their expanding, yet appalling the human spirit, and how insignificant man stands forth in

contrast with nature in her rugged grandeur? Why, sir, what Byron saw was as nothing compared with this, and yet you call this solitude. Now let me answer you in this with a quotation from my favorite, which everybody, no doubt, who reads your splendid language, has by heart—that is to say, if I am not tiring your patience."

"By no means," I answered. "You cannot please me better than by praising this great poet, or by quoting from him."

"That being the case, then here are the lines I want to use—

' To sit on rocks, to muse o'er flood and fell,  
To slowly trace the forest's shady scene,  
Where things that own not man's dominion dwell,  
And mortal foot hath ne'er, or rarely, been ;  
To climb the trackless mountain all unseen ;  
With the wild flock that never heeds a fold ;  
Alone o'er steeps and foaming falls to lean ;  
This is not solitude ; 'tis but to hold  
Converse with nature's charms, and see her stores unroll'd.'

"To be sure there is here no 'forest's shady scene,' but I have oftentimes, in the winter moonlight, come to this same spot, and, looking out over the desolate,

frozen sea, have, in the dark trailing shadow of a high ridge of hummock ice and icebergs, imagined that I was looking out upon a great woodland, such as I have many a time seen in winter time elsewhere. But if the forest is not here, all the rest of it most surely is; but the reverse of the picture quite as surely, is not. And now to wind up all this Byronic sentiment, let me just say, in the same Spenserian meter as before, and from the same excellent fountain head of poetry,

‘ I live not in myself, but I become  
Portion of that around me ; and to me,  
High mountains are a feeling, but the hum  
Of human cities torture.’

“ But to change the subject,” continued my host in a less grave manner, “ and answer your question more fairly,—you see I do a good deal of exploring, have reached many of the glaciers, have dabbled in natural history, meteorology, magnetism, and all that sort of thing, besides making many photographs and geographical surveys, and have sent home to various societies and museums many curiosities and much information. My name, as you know, stands well

enough among the dons of science. But, apart from this, my duties require me to travel about at all times and during all seasons. You must know that everybody in this country lives upon the coast, and, therefore, the settlements are reached only by the sea. In the winter I travel over the ice with my dog-sledge, and, in the summer, when the ice has broken up, I go from place to place in that little yacht which you saw lying in the harbor. Sometimes I go from choice, stopping at the villages and exhibiting my professional abilities upon Dane or native, as the case may be. Often I am sent for. The Greenlanders don't like to die any better than other people ; and they all have an impression that if Dr. Molke only looks upon them they are safe. So if anybody gets but an ache of any sort, away goes a courier for the Doctor. Perhaps it is in summer, and the distance may be a hundred miles or more. No matter, he gets into his kayak and paddles through all sorts of weather ; and, at the rate of seven knots the hour, comes for me. Glad of the excuse for a change, to say nothing (and the less perhaps any of us say on that score the better) of the claims of humanity, I send Sophy after Adam (a converted native) and directly along comes Adam

with his son Carl ; and my medicine and instrument cases, my gun and rifle, and a plentiful supply of ammunition, a tent and some fur bedding, a lamp and other camp fixtures, and a little simple food, are put into the boat, and off we go. Perhaps a gale springs up and we are forced to make a harbor in some little island, or perhaps it falls calm and we crawl into one under oars. It is sure to be alive with ducks and geese and snipe. The shooting is superb. Happen what may, come storm or calm or fine weather, though often wet and cold, and frequently in danger, yet I have a good time of it. I may be back in a day, two days, a week, or I may be gone a month. Then the winter comes, and I have again to answer another summons. The same "traps" are put on the sledge, to which are harnessed the twelve finest dogs in the village—my own team—and at the wildest pace at which this wolfish herd can rush along, Adam guides me to my destination. Perhaps it may be early in the winter and the ice in places thin. We very likely break through and get wet and are in danger of freezing. Perhaps we reach a crack which we cannot pass, and have to halt, and, possibly in a hut of snow, wait until the frost builds a bridge for us to pass. This

is the wildest and most dangerous of my experiences—this dog-sledging it from place to place in the early or late winter; and I have many wild adventures. In the middle of the winter, when it is dark pretty much all the time, and the snow is hard and crisp, and the clear cold bracing air makes the blood run freely through the veins, is the best time for traveling; for then we may start a bear and be pretty sure of catching him before he gets on rotten ice or across a crack, defying us in the pursuit."

By this time the sun had begun to climb above the hills, and the shadow of the cliffs had passed over the town, so we strolled back to the Doctor's house. The Doctor insisting that I should not sleep on board, we returned to the study, where I was soon wrapt in a sound sleep on the Doctor's "shake-down," from which I never once awoke until there came a loud tapping on the door.

"Who's there?"

"Sophy."

"What's Sophy want?"

"Breakfast!"

Breakfast indeed! It was hard to believe that I was to come back to the experiences of life under

such a summons, for I had dreamed that I was on a visit to the Man in the Moon, and was enjoying a genuine surprise at finding him happy and well contented, seated in the center of an extinct volcano, with all the riches of the great satellite gathered round him, hanging in tempting clusters on its horns.

But my eyes at length were opened wide enough to see near by the very terrestrial ruins of our evening's pastime; and, if these had left any doubt upon my mind as to the reality of my present situation, these doubts would certainly have been removed by the cheerful voice of the Doctor; for a loud "Good morning," came from out the painted chamber, and from beneath the sky-blue canopy a graceful query of the night,

"What of the night, sleeper! what of the night?"

Then I was quickly out upon the floor and dressed, and in the cosy little room where the fruits and flowers were hanging on the wall, and where the bright face of Sophy, and aromatic coffee, and a charming little breakfast were awaiting us with a kindly welcome.

Breakfast over, I left the Doctor to expend his skill and knowledge on a patient who had sent to

claim his services, and strolled out over the rocks behind the town, wondering all the time at the strangeness of the human fancy and its power on the will, and I reflected too, and remembered, that in the explanation of the satisfying character of the life which my new-found friend was leading, there had been no clew given to the first great motive which had destined such a finely organized and altogether splendid man to such a career. Was he exempt from the lot of other mortals ? or must he, too, own, like all the rest of us, when we own the truth, that every firm step we ever made in those days of our early lives when steps were critical, was made to please a woman—to win her slightest praise, to heal a wound or drown a sorrow of her making ? I would have given much to have the question answered, for then a thing now mysterious would have become as plain as day ; but there was no one there to heed the question or to give the answer, and I could only wander on over the rough rocks wondering more and more.

II.

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THE SAVAGE.

“ He was a dark, unlettered savage ; wild,  
Untamable. You might as well have tried  
To tame the fiercest jungled forest child—  
Tiger or leopard, lion, catamount. Allied  
Were these to him by nature. Gentle and mild  
He might be to his kith and kin, but pride  
Would brook no interference with his will  
Unchallenged. Savage born, he was a savage still.”

ANON.

## II.

### THE SAVAGE.

"Do you wish to see one of my friends?" said Doctor Molke to me one bright morning, while I still remained his guest.

"Certainly."

"But he's fifty miles or so away."

"So much the better."

"And to reach him is not without danger."

"Not greater to others perhaps than to yourself."

"Shall we set out at once?"

"The sooner the better."

And the Doctor once more tinkled his little silver bell, and once more Sophy, of the silver seal-skin pantaloons and dainty snow-white boots, tripped softly through the door.

"We are going on a journey, Sophy," said the Doctor; "can you put up something for us to eat and drink?"

"Yes," answered Sophy, promptly; "but I should know better what to do if Doctor Molke would tell me how long he means to be away."

"Perhaps a week."

"A week!" exclaimed Sophy, evidently surprised; and she appeared as if very much inclined to ask the Doctor where he proposed taking the American to stay so long, for she looked first at him and then at me, and then at him again.

The Doctor quickly interpreted the puzzled expression of the countenance of his housekeeper, and prepared to gratify her.

"You would like to know, Sophy," said he, "where we are going, would you not?"

"Yes," she answered, and with a promptness, too, which showed that she had great interest in the matter, though I could not imagine why.

"Then suppose I tell you we are going to pay our respects to Sipsu, the savage," said the Doctor.

"I shouldn't half believe it if you did," answered Sophy.

"But we *are*, really and truly," said the Doctor.

"Really and truly," echoed Sophy, in, as it seemed to me, a half-inquiring, half-pleading tone of voice.

"Really and truly, Sophy."

"Oh, don't do that!" said she.

"Why not, Sophy?"

"Because," she answered, hesitating, "because it's such a horrid place to take the American; it will give him such a bad idea of the country—and—and the people."

"Perhaps his ideas of the country and the people are as bad as bad can be, already, Sophy; at any rate, I think he can stand it, so be a good girl now, and help us off."

This appeal to be a good girl and help us off, was clearly made on the weak side of Sophy's character, for it was easy to see that a good girl, in Doctor Molke's estimation, was what Sophy was very glad to be. At least she made no further remonstrance, but at once tripped lightly out, as she had tripped lightly in, to do her master's bidding, giving, as she turned to go, a cunning little pout and a modest shrug, which could not have been better done nor more charming to look upon, had Sophy been dressed in petticoats and skirts, instead of silver seal-skin pantaloons, and dainty snow-white boots, and fur-tipped jacket, reaching to the waist.

In a couple of hours everything was ready for the start, and we went down to the boat. And the

boat was really ready to some purpose. The stern-sheets presented a tempting nest of fine robes of bear and fox-skins; a tent lay rolled up beside the mast; the locker beneath the robes was filled with whatever, in the shape of eatables, and drinkables, and smokables, the most fastidious taste or hungry appetite could desire, in reason; while stretched across the thwarts were guns, and rifles, and pouches, and indeed everything that a hunter needed for a long campaign. Then there was a cooking furnace forward in the bows, and it was clear enough that nothing had been neglected by my prudent host, or the thoughtful Sophy, or the pilot Adam, that could contribute to the comfort of the inner or the outer man.

Adam was as odd-looking a pilot as was ever seen. Coppery-faced, heavy-jawed, broad-visaged, beardless, fur-coated, and altogether stumpy, he was clearly a native-born Esquimau, for nothing else was ever molded exactly after that pattern. He was clean, which showed that he had received instruction, and by it had profited. His name indicated that he enjoyed the benefits of baptism, and was of the Christian faith. He could speak a little English, which proved that the schoolmaster was abroad, even then, in Greenland.

"All ready, Adam?" inquired the Doctor, as we stepped aboard.

"Very ready," answered the pilot, evidently desiring to exhibit his proficiency in the English tongue, for my particular benefit.

"Up anchor then, and shake out the sails."

The anchor was soon lifted out of a great bed of sea-weed, in which it had been lying, and the sails unfurled by the sealskin-coated Adam, assisted by three other natives, who had been shipped to pull an oar, in case of need; and now, with the Doctor at the helm, we were soon gliding out of the harbor, shaping our course for the mainland to the eastward.

The wind soon became light, and baffling, but the time being midsummer the temperature was warm, and the sun shone upon us all the time, as bright and glorious at midnight as at noon. This circumstance gave to the day a strange romantic freshness that was truly delightful, for, although the continuous daylight of the Arctic summer was not new to me, yet it seemed, for all, a novel thing to be sailing on and on in an open boat, and never needing to look up a place of retreat or anticipate the night.

We were full thirty-six continuous hours upon the

water, and during this protracted sail we watched the changing scenery without weariness, breaking the monotony now and then by prying into the mysteries of Sophy's well-stocked locker, or by a shot at a passing duck, or gull, or other bird, or by a nap, or by whatever else served most pleasantly to while away the time. .

And the scenery about us was at all times enough in itself to occupy the thoughts and prevent fatigue. The great solid wall of the Greenland coast rose steadily before us, and the multiplying cones of whiteness which climbed up behind it melted away among the clouds, unbroken by a single ray of green—one boundless waste of sterile rocks, sublime as they were desolate.

By and by little islands began to show themselves above the water; and as we passed near some of them, the eye was charmed by the discovery of here and there a patch of grass or moss mosaiced in dark slopes, like emerald in a bed of jet. On several of these islands there were lonely little hunter's huts. Sometimes these huts had peaked roofs, but more usually the roof was flat, the former denoting the white man's home, the latter the shelter of a native hunter. Desolate as appeared the land, and

dreary as it seemed for human residence, the air and sea were teeming with life. Great flocks of birds, principally eider-ducks, different varieties of auks, and glaucus, tridactyl, and other gulls, were constantly darting by or curiously hovering overhead. Seals in great numbers were sporting in the sea, putting up their half-human faces when we neared them, as if to ask why we had come into their haunts, and, sometimes, again upon the ice-fields that we passed, great schools of them were lazily basking in the summer's sun, or were fast asleep in the noonday warmth.

And during all this time icebergs were constantly in sight, rising one after another from the sea before us, and sinking away behind us, passing us, as it were, in solemn procession, sparkling all the while like precious gems, and, now and then, cracking and crumbling to pieces, piercing the air with sounds compared to which the loudest thunder would be hoarse and feeble. This latter phenomenon was clearly caused by the warmth of the sun, which, falling unequally upon them, split them with explosive violence, and tumbled fragments from their sides like a blast of powder in a quarry cliff.

Passing on among these unusual scenes, we came

at length beneath a lofty cape, which rose almost squarely from the sea to the height, as it seemed, of two or three thousand feet or more. Commencing at the bottom, a series of ledges followed each other half way to the top, and on these ledges were standing, or sitting bolt upright, long rows of birds with black heads and backs and pure white breasts, crowded close together, and looking for all the world like soldiers with black shakos and Austrian coats, shoulder to shoulder, in solid column on parade. They were the well-known lumme, one of the most numerous varieties of the Greenland auks.

There was not much sport to be had in slaughtering such stupid looking innocents as these, and so we ran in close to the cliff to observe rather than to shoot.

The birds upon the lower ledges, were, as we came near, readily counted, but above they vanished into scarcely distinguishable streaks of white. To and from all the ledges, low and high, birds were coming and going continually, as bees come and go from a hive, hurrying to the sea to get a meal of shrimps, and hurrying back again to nurse their eggs, each to its own particular egg, for each lays

but one, on which it sits or stands bolt upright, and hatches out the chick without a nest of any sort, and without the least protection from the naked rock.

The eggs being all alike, it seemed to me strange that each bird should know its own, and come back to it, but the Doctor told me that they did this with unerring certainty, each picking out its egg as a hen would pick her brood of chickens from the largest flock. Sometimes an egg, however, tumbles from its shelf while its owner is away, and then the unhappy bird seizes upon the first unclaimed one she can find when she comes back, and down she sits upon it as unconcernedly as if it were her own, and there were no means among the feathered tribes for the punishment of theft. But she must take good care that she is not observed, else punishment will surely come. The robbed bird may rob another in her turn, but woe be unto her if the theft be known. I saw one old sobersides as we passed along suddenly pounced upon by an infuriated hen, whose egg she had doubtless stolen ; and then began a combat as fierce and angry as ever took place between old fish-wives. The birds clutched each other by the throat, they pounded each other with their wings, they pegged away at each other's eyes, until,

at last, their bills were locked together, and down they floundered to the water, where they kept on fighting still until we pulled them into the boat and parted them, when Adam quickly wrung their necks, and soon after had them stewing in his pot and made a meal of them.

Combats such as these were very frequent, and the shrieks of the fighting birds, the screams of the other birds, who seemed to be spoiling for a fight, the endless scoldings and chatterings that were going on between near neighbors as they sat there bolt upright on their rocky shelves, all mingled with and added to the ceaseless flutter of the wings of birds that were flying to and fro, filled the air with a roaring sound, which, distinguishable for miles, as if it were the deep murmuring of a distant water-fall, almost drowned our voices as we neared the cape.

But this was nothing to what we were to see, for the Doctor had it in his head to make a sensation. He proposed a shot, not, as he said, to slaughter the innocents, but to give them a fright for my particular benefit. Accordingly, all our pieces being made ready, we fired them in concert. The effect was wonderful. As the strange wild echo of the guns

rang from crag to crag, off from every ledge, from the top to the bottom of the lofty wall, and throughout its mile or more of length, from end to end, the startled birds came with a rush of a tornado—ten thousand, or perhaps a thousand times ten thousand, frightened, fluttering, screaming birds. It was an instantaneous rush, a wild leap into the air, some darting upwards, some downwards, others in a zig-zag course, and all in such rapid flight that they fairly whistled through the air, while down along the wall behind them, from ledge to ledge, came a perfect cataract of spattering eggs.

The number of birds that passed over us was something almost incredible. They were so thick for a few moments that they cast a shadow like a cloud. They soon came down with a tremendous splash upon the sea, all, at least except a few of the bravest, who wheeled about and put back again before they had flown far. Upon the sea, however, they did not long remain, but, gaining courage, all swarmed back again to their rocky ledges, hastening to get upon their eggs once more before they cooled. And there, as we looked back with our glasses, we saw them in the distance, in long rows, sitting bolt upright as they had been before.

This cliff passed, we were now fairly within a deep, wide bay or fiord. The coast on either side was lofty, tortuous, and craggy ; the land behind the coast was mountainous and white. The fiord was dotted with islands, and was crowded with icebergs of every conceivable form and size.

The scene was dreary past description, and grew more and more dreary as we went along ; for the icebergs multiplied in number, and the smaller fragments covered the sea to such an extent that we were often compelled to pick a crooked passage, or to make a wide detour. And all the while, as we were thus pushing our way into this cheerless wilderness, deafening sounds were pealing through the air and reverberating from the cliffs, for masses of ice were, as described before, tumbling from the bergs on every side, while now and then a berg turned over in the sea, rolling the waves beneath us as if a gale of wind were piling up the waters.

To the dreariness of the scene a weird effect was added by the frequently strange shapes of the bergs, as we passed them by ; for in the clear, glittering ice were fashioned rude semblances of towers and spires, of castles and architectural designs of

every sort, and beasts, and birds, and sphinx-like statues colossal as those of Thebes.

But by and by a pleasant light came stealing through the ice forest from the midnight sun, and the bergs reflected the hues of the sky and clouds above, blue, and purple, and bright crimson, while the water, as seen against the ice, was green. Its tender, emerald hues were reflected up into the deep caverns and underneath the overhanging shelves and tongues of the icy walls ; and, as the waves rolled into these caverns, and beneath these overhanging shelves, sometimes with a deep resounding roar, the green light would come and go, and flutter, as if it were a vapor playing there.

This play of light in the air and water was, however, of short duration, for a heavy cloud at length came trailing over us from the sea, at first winding gracefully about the crests of the icebergs, and then after a while settling down heavily upon the waters in a blinding mist.

And now the sounds of falling ice, which before could be traced to their source, came from out a gloom into which the eye could not penetrate. Mysterious darkness hung over the fiord, and it seemed as if mysterious voices were warning us

away, or enticing us to ruin ; and, as I listened to these voices coming through the fog, it really did seem as if there was but a slender chance for us ever coming out alive.

The Doctor was intent upon his duty of steering the boat, and he guided it with a skillful hand. Conversation was checked by the necessity for greater caution and watchfulness. I observed the Doctor's fine face attentively. His practiced eye was quick to detect every new danger in season to avoid it.

Presently, however, his face wore an expression of intense earnestness. He peered into the dense fog-bank ahead of us in a way that quite astonished me. An instant more and he had jammed his helm hard down. The boat came quickly to, but I could see no cause for this maneuver. There was scarcely a piece of ice visible, and we were free, so far as I could perceive, from every source of danger, lying quietly upon the dark waters, the sails shaking and flapping in the light wind.

But when I directed my eyes to the same quarter with Doctor Molke's, I was not long in detecting a moving object vaguely looming through the murky air, and very near to us. The fog and the sea were so

closely blended that there was no line of demarca-tion visible beyond the distance of a few yards, and the object, whatever it might be, seemed as if it were floating in the air, swaying from side to side, and steadily coming toward us. When it had arrived within about fifty yards it wheeled to the left, and appeared to increase its speed.

Up to this time, whatever may have been the im-pression upon Doctor Molke's mind as to the nature of the apparition, I was certainly much puzzled, the thick atmosphere magnified it so immensely and distorted its proportions in every way. The re-fraction of the fog apparently lifted it above the place where the imagination placed the line of water, and it might well have been taken for some huge winged creature from the skies sweeping down upon us with threatening gestures.

I was not, however, long in doubt, for the mo-ment the object wheeled I detected in the little shimmering line of light which lay above the water the outline of a boat and the figure of a man pad-dling through the mist.

At this instant the Doctor called loudly to the strange boatman to stop, but he was evidently not so inclined, holding steadily to his altered course,

and apparently exerting himself to the utmost to hide himself again in the gloom from which he had so suddenly emerged.

As soon as it became clear that the boatman would not stop in obedience to his summons, the Doctor dropped the tiller, and, before I knew what he was about, the sharp crack of a rifle stunned my ear and went echoing among the invisible icebergs.

I saw the rifle ball strike the water to the left of the boatman, and as curiosity was keenly excited to know more of him, I was glad that no harm had been done ; and, in truth, there was on the Doctor's part no intention of injuring him, for the rifle had not been aimed. He had fired merely to "bring him to." And it had that result most speedily, for the boat was wheeled about at once, and the boatman halted facing us.

"Come here !" shouted the Doctor in a peremptory tone of voice. Without further delay the boatman started toward us, slowly however and cautiously.

The conduct of this boatman was wholly inexplicable to me, for there could be no doubt that he saw us, and also heard the summons of Doctor Molke. Why, then, was he seeking to avoid us ? It seemed

to me that the meeting of human beings in a place like this, lonely and full of danger, must be such an unusual event that, under any circumstances, it would be welcome.

Why, on the other hand, the Doctor should manifest such great eagerness to speak to the man, when he was with not less eagerness striving to avoid us, I was equally at loss to understand, the more especially as I could not see that the Doctor would, in any possible way, be the gainer by an interview.

I looked into the Doctor's face to see if that would help me to read the riddle ; but I could only see that Doctor Molke was clearly not a man in the habit of seeing his commands slighted.

The effect was most remarkable as the boat approached us. From its immense size and the constantly changing shape which it assumed in the dense fog, the figure dwindled down at length to human proportions as it came near, paddling to right and left.

There was something so strange in our situation and surroundings, that the introduction of this episode into the experiences of the day, the sudden appearance of a human being in this vast ice-forest and impenetrable mist, and the bringing him to our

side, as it seemed, a captive, added the fascination of mystery to the sense of novelty and surprise. The incident occurred most opportunely, for I had already made up my mind that with the closing down of the fog had come the end of our pleasant experiences, and, growing damp and chilly, was about to bury myself in the fur robes and be patient.

But who and what was this mysterious boatman? To give it the greater romance, I might have taken him for some pirate of the ice-forest, had the idea of icebergs and pirates been in any way capable of association. There was more reason for belief that he was some outlawed criminal fleeing from the sight of man, and venturing abroad only when nature dropped a curtain behind which he might steal in safety, for when I got a fair view of his face I found it not by any means attractive, and yet one could not feel disposed to judge the man by any common standard.

A more singular-looking creature it would be difficult to imagine. His boat itself was a curiosity to behold—the frailest thing perhaps that ever carried human freight. And yet, to the nautical eye, its lines were beautiful—gracefully curved, and indicat-

ing speed. It had no keel, as I afterward discovered, and it rode upon the water with the lightness of a duck, turning about as easily and shooting forward or backward without any apparent effort of the boatman. It was propelled and guided by a long oar, which the boatman grasped in the middle, and which had a blade at either end, and neatly tipped and strengthened with walrus ivory. The length of the boat was about twenty feet, and its width as many inches at the middle, from which it tapered to a sharp, upward-curving point at either end, where were ivory ornaments, as on the paddles, and an ivory cut-water, thin and sharp, like the blade of a knife. The frame of it was made of light wood, the different pieces cunningly lashed together, and, over this slender frame tanned seal-skins were stretched and sewed with sinew thread in a perfect seam. The skins covered the top as well as sides and bottom, leaving only a small hole at the center to admit the boatman's body to the waist. Around this hole was drawn firmly the lower margin of the boatman's outer coat, which, made of the same sort of tanned leather as the boat itself, was surmounted with a hood that covered up the head, and was bound tightly with a draw-string around

the face before the ears, while the sleeves were fastened with other draw-strings about the wrists. There was not left a single orifice through which a drop of water could find its way either to the body of the man or inside his boat, no matter how much the waves might wash over him, even burying man, boat, and all from sight.

The man and the boat were indeed one—bound together, moving together, acting together in every way, and apparently possessed of the same life and will. It seemed almost as if the whole might be some marine monster—a sort of centaur of the sea.

I have said the face of the man was not attractive, but I should rather say that it was savage—savage in every feature—coarse, and unrestrained, and strong, full of passion and of energy, but whether naturally cruel, I could not well make out.

His features, which were of a dark copper hue, showed plainly that he belonged to the same race as our pilot Adam, and differed only in degree in being coarser in every particular. Everything that was marked in Adam's face was more marked in this mysterious boatman's. The face was something broader, the cheek-bones were more projecting, the jaws were heavier, the nose was flatter.

The mouth was very large and very wide, the chin was small, and the lips were thick. The upper lip was long, and on this and the chin there were a few stiff black hairs, but upon no other part of the face was there any beard. As in all his race, the inner corners of the eyes were drawn down, giving the impression that the nose had tumbled from its natural fastenings, and had pulled the eyes a little out of place.

Why the Doctor had brought him to us was, of course, what I wished to know. But the Doctor was so intent upon securing him, that I determined to postpone the solution of the matter to some other time, contenting myself with observing, before he came well in view, that I thought it "strange that he should desire, seemingly at least, to avoid us."

"Oh, not at all," responded the Doctor, "not at all ; these Greenlanders are an odd race, and their whims are endless."

"He is then an Esquimau ?" said I inquiringly.

"Yes, and I should have told you that before. But, you see I took a fancy to speak with him, and I was busy about that. Besides, I did not want him to get away, after I had ordered him to come to me ; that would never do unless I should choose

forever to lose all influence over him. Not only is he an Esquimau, but an untamed one. We call him Sipsu, the savage."

"The name, I think, of the person we are to visit."

"The very same, and this is the very man himself. You see I did well to send that ball after the fellow, for otherwise we should have missed him, and been deprived of the chief pleasure of our call."

Sipsu was looking very sullen, as he had abundant cause to do, as I thought. When within a few yards of us, he backed water with his oar, and brought his boat to rest almost with the suddenness of a skillful rider bringing up a horse on his haunches.

"Hallo, Sipsu," cried the Doctor, as if noticing his sullen looks ; "I thought you didn't see us, and didn't hear me call, so I fired to let you know we were about."

Sipsu did not appear to see any joke in the firing of the rifle, nor pleasure in being near us ; for he gave neither smile nor answer, and did not change a muscle of his stolid face.

"We are going up to see you," continued the Doctor. "Here is a stranger come in a big ship

from a great country far away across the waters, and he wants to visit you. We are going up to your island."

The savage manifested no further signs of satisfaction than he had done before, merely nodding his head and saying "Ap," for yes, by way of signifying that he understood what was said to him.

"Where were you going to in such a desperate hurry, Sipsu?" asked the Doctor.

"Catch seals," answered Sipsu, in a language which former experiences enabled me sufficiently to understand.

"All right," replied the Doctor, "very good. Now Sipsu lead the way while we follow after, and mind don't go too fast. If you hear me call, you had better stop at once."

The savage appeared to hesitate, and looked more sullen than ever.

"Do you hear?" exclaimed the Doctor in a louder voice.

At this the savage dipped his oar and turned his boat up the fiord, and with two sturdy strokes shot his little craft ahead as if it were an arrow from a bow.

"Slow and easy," called the Doctor after him, "slow and easy," and Sipsu eased his stroke and proceeded quietly.

"A little angry just now at being disturbed," explained the Doctor, "but he'll soon cool off."

"Much bad man!" exclaimed Adam overhearing his master's words.

"Much mind your business and get that jib-tack aboard!" exclaimed the Doctor rather impatiently.

Under the healthful stimulus of this command, Adam and his fellows quickly performed their part of the preparation for getting under way, and we were soon once more standing up the fiord, Sipsu leading off, and as he had been directed, adapting his movements to our own.

We had not far to go, for in less than half an hour a dark rock loomed through the thick atmosphere, and almost as soon as it was seen we were alongside of it and ashore. Sipsu pulled up near by, and laying his boat close to the rock, placed his paddle on it and, with this to steady him, he drew himself out of his cranky little craft, then seizing it with his right hand, he took it on his arm as one would take a common market-basket, and started up the rocky slope, we following.

In a few moments we came to a large seal-skin tent, and on a great platform of flat stones, elevated on eight pillars of the same material, Sipsu placed his boat. This platform was about six feet from the ground, and held a sledge, a great quantity of harpoons and spears and lines and harness for dogs, some twenty or more of which were howling about us the moment we had landed.

"Why are these things put there so carefully?" I asked.

"To keep the dogs from tearing them to pieces."

And, indeed, the villainous and wolfish appearance of the animals was in keeping with their destructive reputation. Savage and untamed like their master, they kept circling round us, snarling in a very threatening and disagreeable sort of way. They were of all sizes and colors, and, unlike those which I had usually seen in the country elsewhere, they were sleek and well fed, and looked as if they might whirl a sledge over the ice at a very rapid rate.

When Sipsu had put away his boat (*kayak* he called it), he took off his tanned seal-skin coat and stood before us robed in shaggy furs, and now it was that for the first time the sullen lines of his face were crossed by any other expression. Suddenly he

gave a broad and hideous grin, and proceeded to imitate a white man's custom by advancing toward me with an outstretched hand. For an instant I felt inclined to shrink, as I would from the embrace of one of Du Chaillu's gorillas, but my repugnance to the savage did not make itself apparent, and, indeed, when he opened his mouth to speak, I found myself so much amused by what he said that I only remembered I was holding the hand of an exceedingly interesting and curious specimen of the human race.

"Why," said he to Doctor Molke, with an apparent heartiness difficult, after the Doctor's recent treatment of him, to understand ; "why it's as good as a big fat seal to see you, and better than a pile of eggs to see this other man. Who is he ?"

Whereupon the Doctor told him, and then the savage invited us to enter his tent, himself leading the way.

"Here's an *intérieur* for you," said the Doctor as we entered.

And truly it was a curious one. Half the floor was raised a little above the other with flat stones, and on the edge of this raised place sat three women dressed in shaggy furs like Sipsu, and having round

coarse faces like Sipsu, and the same flat and tumble-down appearance generally of eyes and nose which distinguished the Sipsu countenance; and behind these three women seven children had rooted and stowed themselves away in a nest of furs, as little pigs would root and stow themselves away in a well-littered sty, leaving their seven odd-shaped little heads only to be seen, and from these seven little heads fourteen little tumble-down eyes stared at us wildly.

Two of these women were watching lamps that were but open soap-stone dishes, which were supported upon stones, and were smoking villainously beneath pots of the same material hung suspended from the rafters of the tent. From these same rafters were dangling articles of dress and skins of bears and foxes. In the left-hand corner there was a pile of the same sort of materials. In the right hand corner there was a litter of whining puppies, and directly in the center the quarter of a seal, which the third woman was cutting up in bits and tossing into the pots which hung above the smoking lamps.

Curiosity satisfied, we were glad enough to get out into the open air again, and to look about a little.

The tent was Sipsu's summer residence, and was composed of seal-skins, sewed together and thrown over a rude frame made of wood and bone, many pieces being lashed one to the other in a cunning way. Near by was his residence for the winter. This was simply a low flat hut built of stones and turf, and was evidently thought to be a great affair by its savage proprietor, but it did not possess sufficient attraction to tempt either of us within the entrance, where we should have been compelled to stoop very low, or crawl ten feet on our hands and knees before reaching the doorway.

Passing this hut, we went on to a little lake of melted snow around which grew a fringe of moss and grass. Some snipe were flying about, which we were quick to bag, and we plucked some bright little flowers, which were growing there in a very doleful sort of way, and were seemingly unhappy. I thought they looked up into my face appealingly, but when I stuck them in my buttonhole they did not seem grateful, for they wilted away immediately.

There was no need to wander farther, for there was nothing more to see—a mass of rough and rugged rocks as bare of life as the desert sands. But

here, in spite of the desolation, the savage Sipsu lived and prospered, and here he was at home. A strange home truly, on a little rocky island in a wilderness of icebergs, and within the sound of their everlasting cannonade. Great icebergs towered above the island on every side, as we could see when the fog had lifted, and great heaps of ice were piled along the beach. Yet myriads of birds were flying through the air, and seals in any number were sporting in the sea. It was not difficult to see whence the savage Sipsu obtained each day his daily food. Nor was it difficult to make out, when looking at the sterile land, that his food was wholly animal. But of this his supplies were plentiful, as was shown on every hand. I asked him if he never came to want?

“Never.”

“Did he always have everything he needed?”

“Always.”

“What was the food he most relied upon?”

“Seals.”

“The skins of what animals for clothes?”

“Seals.”

“No others?”

“Bears and foxes.”

"No more?"

"Sometimes birds."

The savage seemed indisposed to talk, but he would answer, so I kept up a fusillade of questions, determined if I could to draw him out.

Why did he live upon this rocky island away up here among the icebergs?

"Because he liked to."

This might well have posed a modest man, but I was not to be baffled thus.

Why did he not go down where Doctor Molke lived?

"Among the Christian folks?" asked Sipsu, and he grinned a horrid grin.

"Yes, of course."

"I hate them."

"What, Doctor Molke here, and all?"

"No, not him, but all the rest of them," and he laughed a savage laugh, as if there was a mental reservation covering Doctor Molke.

I could get but little out of him, but by keeping up the questions I found (at least that was what he told me) that he would not go down to where Doctor Molke lived, because if he did he would be obliged to do what the missionary bade him, which

he would never do, for if he did he would be "as poor," he said, "as all the rest of them."

But was he not poor here?

No, who ever said he was? He always had plenty to eat and plenty to wear. There was never want in hut or tent for anything, and nobody ever came there and went away hungry.

"Do you think him a case for conversion?" asked the Doctor laughing.

I had to own that I thought the man was fixed in a faith not easily shaken. His theory of life was deeply rooted, and he had clearly no doubt whatever that he had done his part when he kept his family well fed and clothed, and had a good supply of food laid up against an evil day, with blubber enough to wash it down, and to keep his lamps well going in the long dark winter, and, when besides keeping himself and family in comfort, he could also give to any weary hunter who might pass that way, food and shelter.

"One of your friends, I think you told me," said I to the Doctor as we walked down towards the boat.

"Rather a sorry one, you think?"

"Each to his taste; but I should hardly suppose

the savage would quickly forget that business in the fog, or be inclined to love you very deeply, if such are your approaches to his heart."

"Ah!" replied the Doctor, "he knows me of old, and, if he does not love me very deeply, he has a wholesome fear of me, which is, perhaps, as well. Yet, after all, he has befriended me, and would serve me now, though, in truth he has little cause to love me, and I really cannot help liking the fellow after a fashion. He is the most perfect type of his race that I have met with, and it is always something at least to get hold of a man with real character."

"Certainly, whether good or bad."

"Well," continued the Doctor, "there is not much of the good according to our civilized notions in this savage Sipsu. He has all the savage virtues, if you know what they are, as well as savage resentment. It so happens that I am the only man who can do anything with him, and the only white man for whom he manifests the least attachment."

"I should not think," said I, "that sending balls about his head as you did to-day, would be calculated to strengthen it."

The Doctor smiled and said the fellow was

rather used to it. "Besides, I wanted you to see him, and had you not, the journey would have been rather disappointing."

"What was his business in the fog?" I asked.

"That is what I should like to know myself; some villainy, you may be sure. In such a fog these people will never stir abroad to hunt on any pretext; for they are sure to lose their way. They cannot find the game, and are always in needless danger. However, this savage is an exception, for he finds his way through a fog in a most marvelous manner, with the instinct of the sleuth-hound on the scent."

By the time the Doctor had finished this not very flattering account of his friend, we had reached our landing-place, where Adam had found a patch of grass, and pitched our tent and cooked a supper (or dinner, or breakfast, whatever it might be, for the sun being always up, we gave no thought to the time of day), and had ransacked Sophy's well-stored locker and spread all the eatables and drinkables and smokables upon a huge flat rock near by. And to these things we did as one may well suppose, full and ample justice.

Supper over, we crept into the tent and stowed

ourselves away in the furs we had brought with us, and undisturbed by the ceaseless roar of the crumbling ice on every side, or by the damp and chilly fog, slept soundly. But, before I fell asleep, I could not but reflect how strange it was that any human being should, from choice, live in such a desert home; and as I thought of my companion in the tent, and remembered my surprise at seeing him first in the lonely spot he had chosen for his residence, and then recalled what I had seen of the strange relation existing between these two men, the one a type of everything refined, the other, a true savage, both alone in solitary places, with all the evidences about them of their status in the social scale, each in his way, it seemed to me that I had come into a very land of wonders, and that they would never cease.

III.

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SNOW AND ICE.

NATURE ! great parent ! whose unceasing hand  
Rolls round the seasons of the changeful year,  
How mighty, how majestic are thy works !  
With what a pleasing dread they swell the soul !  
That sees astonished ! and astonished sings !

THOMSON'S SEASONS.

### III.

#### SNOW AND ICE.

THE dense fog that had overspread the sea lifted in the early morning under the warm influence of the sun. Near by the camp there was a cliff to which I quickly made my way alone.

The view was grand beyond description. No feeble words of mine could ever bring to any other person's mind more than the most faint conception of the splendors of that morning scene. To the east rose the mighty cliffs of the Greenland coast, while far away beyond—far as the eye could wander—rose mountain after mountain canopied with snow and ice; while all around, dark rocky islands, intermingled with towering icebergs, dotted the silvery water. Far down the fiord a vast glacier came trailing to the sea.

Ah, that glacier! what a tale it had to tell! The

earth and sea were full of it:—but more than that, the air—the air which there, as everywhere, governs whatever happens to mankind for help or harm—the air that dispenses heat and cold, drought and moisture over all the world, in sunshine and in storm, in cold and heat, throughout the year—the air that wafts to one sweet perfumes, to another noxious vapors—the air that brings pestilence or health to suit its own caprice—the air that blights the strong and invigorates the feeble, that depresses and revives the spirits, that admits the sun and keeps the sun away—the air that, everywhere invisible, is yet a sponge, for does it not soak up the waters and scatter them again to all the quarters of the globe ! Yet while that which it absorbs is composed of infinitesimal particles, that which it scatters is very tangible in its shape ; for when too highly charged, it gathers, as it were, its hot and cold extremes together, rolls up a cloud and flings abroad the rains and snows. This it repeats again and again, as if in playful exhibition of its strength and power.

Thus may a particle of water, perhaps a dewdrop from some tropic leaf, be transported to the Arctic regions, or to a mountain so lofty that it has an

Arctic climate. Here the air drops it as a snow-flake. If now touched by a warm solar ray before the air can again take it up in vapor, it becomes a globule of water. Should the air then grow cold and spiteful, the globule of water thus formed from the snow-flake, is hardened into a crystal, and is bound fast for untold ages.

Thus begins the *ice-sea* of the mountains ;

From the ice-sea comes the *ice-stream* ;

From the ice-stream comes the *iceberg*.

The ice-sea we commonly called the *mer de glace*, borrowing from the French :

The ice-stream, borrowing from the same quarter, we call a *glacier* :

*Iceberg* is from the Dutch, and signifies ice-mountain.

Heat and cold are, as everybody knows, merely relative terms ; yet each in its way creates convulsions. With the negative condition as with the positive, the thermometer is the test of natural force.

The greatest heat of the earth is presumably at its center ; the greatest cold is at its extremities ; that is to say, the mountain tops. The internal heat produces the volcano and the earthquake : the external cold produces, as we have seen, the iceberg

and it likewise produces the *ice-field*. This latter, however, belongs to the ocean, or to arms of the ocean, as Baffin's Bay, where it is formed in contact with the land. It makes the *ice-barrier*, or *ice-pack*, or *ice-belt*, as it is indifferently called, of the Arctic waters, and is the pest of the navigator. It blocks up all the gateways to the Polar Basin, and has, thus far, kept the North Pole of the earth sacred from invasion. Hence man has wooed the Polar Sea in vain. The *ice-field* forms an unbroken girdle about the chaste Queen of Oceans, and he is told, "Thus far, and no farther."

The *iceberg* is very different from the *ice-field*. Hundreds of them may be seen at one time, but they are all separate one from the other. The name, signifying, as we have seen, *ice-mountain*, distinguishes it conspicuously from *ice-field*. This latter is *salt* and flat; the former is *fresh* and lofty.

I have said that the ice-sea begins with the snow-flake. Its growth is from an infinite number of snow-flakes, falling in annual layers, and converted into successive layers of ice. Thus formed upon the land, the iceberg is therefore, in the sea, a vagrant.

Its birth is the "convulsion" of cold, as the

earthquake is of heat; and it is difficult to say which is the most sublime and startling—the birth of an iceberg or an earthquake shock.

“Glacier,” as we have also seen, is the general name we apply to the whole formation which finally results in the iceberg. These form upon all the lofty mountain chains of the earth having a certain geological character. It is even supposed by many philosophers, and among the number the late eminent Professor Agassiz, that many parts of the earth now fertile and inhabited were once covered with ice. They have gone so far even as to add “glacial period” to geological nomenclature.

At the present time, however, glaciers are confined to the lands of the Arctic and Antarctic regions and the lofty mountain chains, as, for instance, the Alps, the Andes, and the Himalayas.

No part of the Arctic regions presents any extensive or magnificent display of glaciers except Greenland. In this respect it is truly a typical land, and might well be called the Arctic continent. In fact, it is a vast reservoir of ice, being almost wholly covered with it. Nothing but the great headlands between the *fjords* (that is to say, the deep bays) and the off-lying islands escape. This

covering is many hundreds of feet in average thickness, and to the eye it presents one vast illimitable waste of whiteness—a gelid cloak—an ice-sea—a *mer de glace*.

This is the last place in all the world where one would expect to meet with such a phenomenon, if there were any meaning in a name. Greenland, with its pleasant-sounding title, has come to be regarded as the symbol of desolation. It ought to have been Snowland or Frostland. Yet, after all, there was meaning in it to Eric, the Icelander, who was its discoverer. He found some valleys and slopes of the headland, where he first stepped ashore, clothed with verdure. Here a great herd of curious reindeer, who had never before seen human beings, were browsing, and down they came, all unsuspicuous of harm, to look at Eric and his followers. This was but a little way north and west of Cape Farewell, near what is now Julianashaab.

Eric wanted credit for this discovery of a new world, and he wanted likewise colonists. So he named it Greenland, the more conspicuously to distinguish it from Iceland, whence he came.

The name took with the Icelanders amazingly, producing much the same effect upon their minds

that "Valley of Eden" did upon the mind of Martin Chuzzlewit. The result, however, on the whole, was better. It gave Eric twenty-five shiploads of colonists, a full pardon for sundry crimes, and much prosperity. It gave one of his sons (Lief, the Lucky) an opportunity to discover America, which feat was performed in the year 1001. It brought, also, fresh treasures to the exchequer of Iceland, and, in time, it furnished beef cattle for the private table of the King of Norway.

But the field of the colonists was circumscribed. Still they and their descendants flourished there for three hundred years and more. They built churches and a cathedral, and cultivated farms, and lived in peace and plenty, by the sea. In the valleys alone and in those only which had a southerly exposure, was there any life. Behind and above them, all was sterility—rugged cliffs of immense height, and mountain wastes of ice and snow.

I have climbed those cliffs, and traveled upon those mountain wastes—upon the *mer de glace*, or ice-sea, reaching as far inland as eighty miles, and as far above the level of the sea as five thousand feet.

There it was almost as level as the ocean in a

calm, and as unbroken ; as void of life as the desert of Sahara, and more dreary to look upon. The temperature was thirty-four degrees below zero, and had steadily fallen to that degree as we climbed up higher and higher, by the scarcely perceptible acclivity. Then we were suddenly set upon by a tempest. Nothing could be more terrible except a furnace blast. The drifting snow, which came whirling along the icy plain, was like the sand clouds of the desert, which so often overwhelm travelers. There was no chance for life except in flight. With our backs to the wind, we descended as rapidly as possible to the level of the sea, where the temperature was zero, at which degree of cold life is supported without inconvenience. My companions were then all unaccustomed to such exposure ; yet, while all were at first somewhat alarmed, none were, in the end, seriously touched by the frost.

It would be difficult to inflict upon a man greater torture than to expose him to such a storm. The effect, after a time, is to make life undesirable—alarm first, then pain, then lack of perception. When one dies from freezing, it is the brain which, in effect, first suffers eclipse. The cold has not solidified it, that is true, but has made it torpid—

like certain animals in the winter time, with which one may do anything and they will not resist, being quite incapable of receiving an impression. One of the men said, "I cannot go any farther; I do not want to; I am sleepy; I cannot walk." Another said, "I am no longer cold; I am quite warm again; shall we not camp?" Then I knew there was the greater need to hurry on, if we would not all be destroyed by the fearful wind.

This digression may perhaps the more readily enable the reader to understand the nature of this Greenland ice-sea.

The whole continent is, perhaps, 1,200 miles long, by, say, 600 broad. This gives 720,000 square miles of superficial area, the greater part of which is this ice-sea. Multiply this by the tenth of a mile, which may be taken as the fair average depth of the mountain ice, and we have piled up on Greenland 72,000 cubical miles of solid ice—a result which seems almost fabulous. And all this, as we have seen, is composed of successive layers of hardened snow, which is still increasing year by year, and century by century; and while thus accumulating, the climate has been steadily growing colder. This is shown by the fact that, from the tenth to the four-

teenth century, people lived in Greenland quite comfortably, while they now live there quite miserably—a change which is only to be accounted for, independent of all astronomical influences, by the circumstance that the sea, as well as the land, has more and more ice gathering upon it from year to year.

Now, it must be borne in mind, that an ice-sea, such as that of Greenland, is not a stationary mass, like rock, but is a moving mass, like water. What is it but hardened water—water crystallized?

Take the better known glaciers of the Alps by way of illustration. There we find a *mer de glace* from which are many branches extending down the valleys on every side. These are called glaciers. They are *ice-streams*, for they flow downward through the valleys, and are the means by which the *mer de glace*, or ice-sea, discharges itself, thus preventing an accumulation which would, but for these ice-streams, become interminable. It is estimated that the mountain-snows of the Alps would gather there at the rate of four thousand feet in a thousand years. This accumulation is, however, prevented by natural law; for the Creator, in the all-wise dispensation of His power, has made ice

ductile, as if it were fluid. Hence it flows, when on an inclined plane, just as water flows, only, of course, slower. An ice-stream is, therefore, in effect, a river, and drains the mountain-ice of the Alps down to the sea, as rivers drain the rains which fall in other places. The Alpine ice-streams become, however, actual rivers in the end ; for, as they flow down the valleys in a continuous stream from the *mer de glace*, the end reaches the base of the mountains, where the temperature becomes comparatively warm, and the end of the ice-stream is steadily melted off, as a candle held to the fire.

The water thus formed completes the circuit to the sea as a real river, and not an ice-river, the only difference, however, in the flow and the law of flow being one of *rate*.

The ice molds itself to its bed, as the river does. When the bed is wide, it expands ; when the bed is narrow, it contracts and thickens ; when the descent is slight, it deepens ; when rapid, it hurries along, and becomes shoal. An ice-stream, like a river, has therefore its cascades, its rapids, its broad lagoons (so to speak), and its smooth, steady, even-flowing places. It carries rocks along with it upon its surface, which have been hurled down upon it from

neighboring cliffs by the frost, as the river carries sticks of wood, leaves, and other light materials.

Greenland is only the Alps many times magnified—not in altitude, but in extent of surface and the quantity of mountain-ice which it has accumulated. The whole interior of that continent, as we have seen, is, in effect, covered with an ice-sea, from which flow ice-streams on either side down through the valleys.

There is, however, one great point of difference between the Alpine ice-stream, or glacier, and the Greenland ice-stream. While the end of an Alpine ice-stream melts in the warm air, at a lower level than that in which it was formed, the Greenland ice-stream, on the other hand, meets no such fate. The whole of Greenland, from the sea upward to the mountain-tops, has too low a temperature for that. Hence the ice-streams pour all the way down to the sea, which they usually reach at the head of the deep *fiords*. Thus does the sea take the place of the air in the melting process. But not precisely in the same manner, for the sea first breaks off a mass from the end of the Greenland ice-stream, and then gradually melts it, as it floats south with the current.

This mass is the *iceberg*.

Both these processes, however, have in the end the same result—the final return of the mountain-snows to their natural home in the ocean.

The flow of an ice-stream is, unlike that of a river, imperceptible to the eye; but its rate can be measured. The method is simple enough: You mount to the surface of the glacier, and stake off a base-line upon it, either in its axis or parallel with its axis. You then set up your theodolite at one end of the base-line, and connect the base-line by angles with some fixed object on the land which borders the glacier, like the banks of a river, to left and right. You go then to the other end of the base-line, and repeat the process. After, say, a week, or a month, and as many more times as you may find necessary, you go through this same operation of setting up your theodolite and measuring the angles. Then a very simple trigonometrical computation reveals the fact that the ice-stream is carrying your base-line along with it down the valley, leaving the fixed objects on the banks behind. It is almost as if you made a base-line on a long raft, and surveyed a river's banks as you floated down the river with the current.

To further prove the resemblance of an ice-stream

to a river, you plant a line of stakes across it, from side to side, each, say, twenty fathoms from the other. Observe your stakes closely, and, after a time, your straight line has become a curve. This curve steadily increases. The middle of the glacier is flowing more rapidly than the sides. So, in like manner, does the top flow more rapidly than the bottom.

These measurements I have often made ; once on an ice-stream in North Greenland. The temperature was below zero, and it was cheerless work enough. We reached the top of the glacier with much difficulty, cutting steps with an axe. Then we came upon unfathomable cracks, which made the walking dangerous as the view was dreary. There was a strong wind howling down from the ice-sea, bringing with it sharp, cutting snow-drift. The brass instrument froze the eye-lids, and had to be covered with buckskin. The moisture of the breath condensed upon the lenses, and the observer had to breathe through a tube. The men who carried the chain scorched their fingers with the cold metal. Under these circumstances, science becomes a species of martyrdom. Yet we completed our survey, and discovered the ice-stream to be flow-

ing toward the ocean at the rate of four inches a day.

Many of the Greenland ice-streams are of amazing extent. There is one sixty miles wide. Its front is in the water, and it is washed by the waves like any other coast-line ; for it is really a coast-line —an ice coast-line. The cliffs of the land on either side of it are very lofty—from five hundred to a thousand feet. These ice-cliffs are from fifty to three hundred feet in altitude. Below the surface of the water, of course, this wall extends downward, resting on the bottom of the sea like all others. This great ice-stream is known as the Humboldt Glacier, and is at the head of Smith Sound, latitude  $79^{\circ}$ .

There is another Greenland ice-stream that is twenty miles wide ; others that are ten, and five, and indeed of any width, down to the quarter of a mile or even less. Some of them have been pouring into the sea for ages ; some have not yet reached the sea, but are steadily nearing it, like a flood coming down a valley from a broken dam. Not noiselessly, however, for the flow of an ice-stream is attended with continual crackings and breakings, and tumbling of avalanches, which add greatly to its sublimity, and give it an aspect of terror. In fact

this whole Arctic continent is full of startling wonders and novelties of nature, and its history is so replete with violent commotions, from the time when it was a volcanic nest to the present, that it is well worthy of more consideration than it has ever yet received from the learned, or the curious, or even the adventurous. I had once occasion to visit a famous glacier of the Greenland coast. It lies at the head of a fiord which is fifty miles long, measured from the outer coast line, and is from ten to fifteen miles wide ; in one place it is twenty. It is dotted here and there by little rocky islands, and is lined on either side by dark reddish-brown cliffs of great height and of forbidding aspect. The color of the rocks gives the native name to the fiord. *Auk-pa-dlar-tok*, they call it—signifying “The place of the Red Rocks.” The glacier at the end of it takes its name from the fiord.

This fiord is in its general appearance like all the other deep inlets which give such peculiar character to the outline of Greenland. They are, as it were, deep cuts in the land. The coasts are tortuous ; they are very barren ; the water is very deep ; the fiord is encumbered with ice ; it is inhabited by bears and seals, and in the summer time the islands

swarm with different varieties of water-fowl—chiefly gulls, ducks, geese, and auks, which have come there from the south, to breed in the perpetual sunshine of the summer, and to feed upon the infinite varieties and inexhaustible supply of shrimps and other minute inhabitants of the chill Arctic waters.

The fiord of *Auk-paa-lar-tok* lies immediately north of Upernivik, in latitude  $73^{\circ}$ . In fact Upernivik stands upon an island at the southern horn of the fiord, in latitude  $72^{\circ} 40'$ ; and it is not only the most northern of the Danish colonies in Greenland, but it is the most northern Christian settlement on the globe. One would think it the most northern border of human occupation; but it is only the dilute margin of civilized existence; for I have discovered savages much farther north—traces of them within five hundred miles of the pole, and actual residents within seven hundred. These people—the Esquimaux—no doubt wandered to America from Asia—crossing Behring Strait into Alaska in canoes. Moving thence eastward along the north coast of America (they are an exclusively coast people, and are nowhere tillers of the soil), they have finally reached Greenland in the same man-

ner as they had before reached America, or have crossed over on the ice.

Upernivik is a kind of polar Long Branch (its name signifying "Summer Place," from *Upernak*, "summer," and *navik*, "place"), being, during the summer time, a great resort for the natives, who flock thither for no discoverable purpose except to make themselves and others as uncomfortable as possible. It is very barren and desolate, and is much exposed to the sea.

Having brought my vessel to an anchor in the little harbor, I made preparation at once to visit *Auk-pad-lar-tok* glacier; and I was soon off in a whale-boat with a full crew, camp equipage enough for any number of days' absence, scientific instruments for any amount of explorations, and guns and rifles enough for any quantity of shooting. These latter were indeed most important, as they were our chief reliance for supplies. The birds, as I have said, were very numerous. That they were very fishy we had long since ceased to remember—we had become so used to them, and were so glad to get them.

We were two days in reaching our destination, during which time the weather was fine, the temperature ranging at about  $60^{\circ}$ . The sun did not leave us

at midnight, and altogether it was rather a holiday excursion than a "hard experience." The shooting could not be excelled, but the work for the sailors was, it must be owned, rather severe. The fiord was crowded everywhere with ice to such an extent that it appeared on all sides of us as if covered with a canopy, and among the masses we were compelled to pick a devious passage, which was often attended with excessive labor, and was not without danger. First, there were the fields of ice, large and small—some very thin and rotten, others thick and solid—which sometimes, by completely blocking up the way, compelled us to make over the ice-field a sort of portage—dragging our boat and carrying our cargo. Then again came the icebergs, great and little, of every size, from a hencoop to a city, and of every height, from almost no height at all to the dome of the national capitol. Some were wall-sided like a fort; some were rounded like a huge pot turned upside down; some had spires like a church; some had blue and green caverns in their sides, which led the imagination off into a great glacial mammoth cave; no two were alike, and there was nothing the fancy might conjure up that did not take shape in the endless blocks of glitter-

ing crystal—a dog here, a bear there, a bird in another place; then a Greek temple to the right, a mosque to the left; the gable-end of a country house in front, an unfinished city hall behind, and ruins everywhere. Being for the most part transparent, the play of light upon them was very wonderful; being angular, they dissolved the sun's rays; being glassy, they reflected the hues of the clouds. Filling the fiord within its walls, they scattered at its mouth, and dotted with sparks of light the deep blue waters of Baffin's Bay.

To reach the end of the fiord we required a guide; so, agreeably to the directions of the Governor of Upernivik, we hauled in to a tall cliff, which is about thirty miles up the fiord. At the base of this cliff we find a narrow ledge of rock, and on this we discover a rude hut overgrown with turf. Here lives the man we seek—at his feet the sea, above him as gloomy a wall as eye ever lighted on, where the croaking ravens have gathered for an evening concert. Great numbers of wolfish-looking dogs bay a deep-mouthed defiance rather than a welcome; that is, they howl it as we approach; while the inevitable odor of fish gives us a Greenland greeting.

It is a dreary and solitary place for human residence ; but, for all, our guide (not a professional guide as you find in other countries, but a simple seal-hunter) is a cheerful looking man as he meets us at the beach. He is flaxen haired, and is dressed partly in the skins of wild beasts, and partly in clothes of European fabrication. He is a Dane, and, strange to say, of his own free will and accord came to this wild and solitary place some five and twenty years gone by, and has lived there happy as a clam at high water ever since. At least his cheery, weather-beaten face makes you think so. His name is Philip.

Philip's history has not been a peculiarly eventful one—hunting and fishing year in and year out ; trading what he does not need for home consumption to the Governor of Upernivik, and receiving in exchange all sorts of domestic luxuries, such as coffee, tea, sugar, and tobacco, which his family seem to know well how to dispose of. For Philip has a family.

On his way into the fiord, "in the days of his youth," he stopped at Upernivik long enough to fall in love ; no very uncommon thing to happen to a young bachelor of high or low degree, at any time

or in any place ; but Philip's Dulcinea was a full-blown Esquimau, with high cheek-bones, and jet-black hair, and jet-black eyes, and a very dark complexion. "She isn't lazy," said Philip, growing sentimental, "and she has been a good wife to me, very good indeed." I did not inquire whether she had been converted from the religion of her people, but suppose so, from the fact that she had taken the first great step toward godliness, according to St. Paul, in being clean. The inside of her hut was polished like the deck of a man of war, and although there was but one room, yet this was partitioned off into a number of stalls, which were filled half way up to the roof with what looked like bags of air ; in one of which, under the firm impression that I was floating in space, and rolling in a cloud, I slept (between two bags of eider-down, as it proved) the sleep of the weary man, after having eaten the meal of a hungry one ; the meal being mainly composed of a fine salmon freshly caught in some neighboring lake, and venison from a neighboring valley.

Philip's wife has brought into the world a numerous progeny. Some are flaxen-haired and blue-eyed, like the father ; others black-eyed and black-

haired, like the mother ; and they are of all sizes, from a babe at the breast to a full-grown hunter. But midway in the series is a phenomenon—a bright girl of fifteen summers, very fair, with eyes of the father and hair of the mother—a wild flower, truly, in the wilderness. This pretty creature is to become the bride of a savage hunter lately converted and baptized Jens by the missionary at Upernivik. And so once more is a

“ flower born to blush unseen,  
And waste its sweetness on the desert air.”

But, alas ! Christina wears seal-skin trousers ; and who could weave a romance of such materials ? and so I let her pass to the reader's imagination.

Leaving the good wife and the fair Christina and the solitary hut, we once more threaded the fiord over the dead waters and among the shifting ice that was grinding noisily with the tide.

We had a hard pull of it, and at length were brought to a stand five miles from the end of the fiord. We tried first one opening, then another, not without serious danger to our boat ; and at length, convinced that we could proceed no further on account of the closely-impacted ice, we made

our way to the land, drew the boat up on the beach so far that it was perfectly safe from any waves which the crumbling icebergs might set in motion; and then, after a good rest, we mounted a neighboring hill for observation.

To reach the summit we find to be no easy task, the ascent being through a steep gorge, which is filled with sharp rocks that the frosts had hurled down from the cliffs above. But at last we come upon a tolerably level plain, across which we walk half a mile, and then we stand upon the edge of a precipice about a thousand feet high, facing the ice-encumbered fiord through which we have made our way.

Never did eye of man light upon a more marvelous spectacle. Below us the winding fiord with its vast forest of icebergs glittering there in winding procession between the dark coasts and islands, made darker by the contrast. There, over the tops of the great icebergs, rose the opposite wall of the fiord to a great altitude, terminating in rounded bluffs that were partially covered with snow, and these blended with hills that rose still higher and higher in the distance, and these again into great cones of spotless whiteness, leading the imagination

away in the pearly distance to the gates of some hitherto undreamed-of paradise.

But down at my right was the object that I most rejoiced in—the phenomenon which I had come to see—the great glacier of Auk-pad-lar-tok, an immense wall of white and blue and green, crossing the waters from shore to shore, a distance of about ten miles. Behind this wall, like the snow-covered roof of a house, sloped up the white surface of the ice-stream, resting in the valley between the great bluffs and cliffs, which border it with a dark and dwindling line, until in the far distance this inclined plane has carried the eye up to the altitude of the most distant and lofty mountains, where it is lost in a great level line of bluish whiteness, stretching away to the east and north and south. This is the surface of the great *ice-sea*—the *mer de glace*.

As my eye lingered upon this far-distant line of the ice-sea—this boundless waste of accumulated snows—my imagination wandered back to the time when the great ice-stream before me first emerged from it, when the valley in which it now rests was clothed with verdure, when sparrows chirped among the branches of its stunted trees, when herds of reindeer browsed upon its abundant pastures, and

drank from a stream of limpid water which poured from the front of the *mer de glace*—at a time when the climate was warmer than it is to-day. Then I fancied myself standing where I am standing now (ages and ages ago), and saw the ice-stream first come in sight far up the winding valley, its front hundreds of feet high, and miles across ; and I fancied myself watching the icy flood twisting and turning, widening and narrowing, sometimes moving with comparative rapidity, sometimes very slow, but steadily, year by year, coming toward the sea. I see it swallowing up rock and pasture ; I see the deer retire farther and farther down the valley with each returning year ; I see the hills within the valley overwhelmed, the crystal stream pouring over and around them as if the ice were soft putty ; I hear the cracking of the ice as the strain here and there becomes too great ; and I hear the echoing sound of the avalanche of ice and snow crumbling from its front, and crashing far down into the plain beneath. All this seems to be passing before me. I watch the stream until the front of it has reached the sea. But here it does not stop. The bed of the sea is but a continuation of the same inclined plane as the bed of the valley, and its onward course

is continued. It presses back the water ; it makes now a coast line of ice where there had been a beach ; and a white wall stretches across the fiord from one side to the other. As it flows onward it gets into deeper and deeper water, its foot now resting on the bottom of the fiord. Thus the icy wall sinks gradually down, as it moves along, and, in course of time, it has almost gone out of sight. Then it gets beyond its depth.

When fresh ice floats freely in salt water, there is one-eighth of it above the surface to seven-eighths below. If these proportions become disturbed, then the buoyancy of the water will lift the end of the ice-stream up until it reaches its natural equilibrium. But for a long time the continuity of the ice is not interrupted, so great is its depth (many hundreds of feet), so great is its width (ten miles). But finally it is forced to give way. A crack is opened. It widens. A fragment is detached. It is lifted upwards ; and now, when free, it bounds to its natural floating level, and while the loud voice of the disruption is echoing among the hills, and

“ Far along  
From peak to peak, the rolling crags among  
Leaps the live thunder ”

of its making, great waves which it has stirred to life are rolling down the fiord, while the enormous fragment of the glacier is coming slowly to its natural equilibrium and rest, and is, as it were, making ready to float away with the current to the broad ocean.

This fragment is the *iceberg*.

Have I made the ice-stream clear ? its great width and depth ; its length ; its steady flow ; the boundless sources of its origin ? It is the Arctic river. To Greenland it is what the Amazon is to South America. The one drains down to the sea the precipitations of the air which fall as rain upon the slopes of the Andes and the mountains of Brazil, and the plains between ; the other drains to the sea the precipitations of the air which fall as snows upon the Greenland hills and mountains. The parallel is complete.

The surface of the ice-stream is, however, far from smooth, or its flow noiseless. Its substance is not so plastic that it yields to pressure readily. The movement of its particles in the molding process is very slow. The pressure, hence, sometimes becomes too great. Cracks are opened, perhaps down through all the hundreds of feet which compose its depth ; and beginning as a loud peal, it becomes in

the end a crash. This particularly happens when the bed over which the stream is flowing is very rough, and the descent rapid. Here the surface of the stream, losing its generally smooth character, is crossed with great crevasses in every direction. On the Auk-pad-lar-tok Glacier this was nowhere so conspicuous as about the point of a sharp headland, which, projecting far out into the valley, caused the ice-stream to narrow itself, and to flow more rapidly. This same effect was observable a little higher up, where it had wound around a hill which it had not quite covered, the dark rocky crest showing conspicuously above the white surface of the stream, as an island in a river.

It is, perhaps, not surprising that so few people should really know what an iceberg is, seeing how few people there are who go where icebergs come from. We have seen that they come from Greenland. (See note, p. 142.)

But how do they get down into the region of ordinary observation—into the region of the North Atlantic, coming there in season and out of season, as if for no other purpose than to worry the people who travel on the ships which traverse the North Atlantic waters.

The answer is simple. They are brought down from Greenland by that great polar current whose course is now through the Spitzbergen Sea, the Greenland Sea, and Baffin's Bay—a current which in some remote geological epoch once swept over the greater part of what is now North America, as, at the present time it sweeps over the growing banks of Newfoundland—a current into which Lake Superior once discharged as a gulf; then afterwards, Huron and Michigan; then Erie and Ontario, and now the Gulf of St. Lawrence, which will, in the course of time, form another fresh-water lake in the great chain, as the sea becomes more and more filled up, while another gulf and a river still beyond, will tempt some enterprising explorer of a distant time to give a name.

Many of the icebergs that drift down with this current carry, imbedded in their very heart, vast quantities of rock and sand, which are deposited at the bottom of the sea when the iceberg melts. Thus do they add something every year to the shoals off Newfoundland and to the northward, and thus do they strew the entire bed of the polar current with boulders from the Greenland hills. When these now submerged regions come to be elevated

above the ocean, the geologists of that day will have less trouble to account for the bowlders being there, than our forefathers had to explain the presence of similar masses on an Illinois prairie, or in the valleys of the Mohawk, the Potomac, and the Connecticut.

The melting of the iceberg is far from rapid. It requires many years to mingle its crystal particles with the waters of the ocean. Yet its rate of drift being slow, and the distance great, by the time it has reached the track of vessels in the North Atlantic the largest part of it has disappeared; and immense though they sometimes appear to be when seen from the deck of ships crossing to Europe, they are then but a fragment of their former greatness. Indeed, very few of them ever reach so low a latitude at all, going to pieces long before the current has carried them so far.

To make the nature of the iceberg more clear to the reader's mind, I will use a very homely illustration.

Observe the little bit of ice that clicks in your tumbler at dinner-time. Observe it closely, and you will perceive how very small a part of it floats above the surface of the water—not more than one-eighth at the farthest—while the remaining seven-

eighths float beneath. Now, this little bit of ice is an iceberg in miniature—an iceberg in every essential feature, except that it did not, in all human probability, come from Greenland. In shape, in general transparency, in the play of light upon it, in its prismatic character, in its frequently cavernous form, in the general shape of the projecting tongues which lie beneath the surface of the water, in the delicate mist which plays around its summit in the warm air, it is the very image of those great floating monoliths of the Arctic frost which come sailing down Baffin's Bay with the polar current in all their stately grandeur and magnificence, meeting, as they tread their watery way, the great billows of the ocean with a cold disdain, sending them away moaning and shattered in defeat, chilling the air for leagues around, yet gathering to themselves the gorgeous colors of the sky; immovable from their steadfast course—majestic as the "silvery moon," that, like the iceberg, bathes its sides in the trembling wave.

The iceberg is the largest independent floating body in the universe, except the heavenly orbs. There is nothing approaching it, within the range of our knowledge, on this globe of ours; and yet it is,

as we have seen, but a fragment of the ice-stream, which is, in its turn, but an arm of the ice-sea. And yet the iceberg is to the great quantity of Greenland ice as the paring of a finger nail to the human body—as a small chip to the largest tree—as a shovelful of earth to Manhattan Island. Yet magnify the bit of ice in your tumbler until it becomes, to your imagination, a half a mile in diameter each way, and you have a mass that is far from unusual. Add to this a mile, two miles of length, and you have what may sometimes be seen. I have sailed alongside of an iceberg two miles and a half, measured with a log-line, before coming to the end of it.

The name signifies, as we have seen before, ice mountain; and it is truly mountainous in size. Lift it out of the water, and it becomes a mountain one thousand, two thousand, three thousand feet high. In dimensions, it is as if Central Park were set adrift in the Atlantic Ocean. An iceberg of the size of Central Park is far from unusual; while its surface, in form, is not very unlike. Like the Park, it is undulating and craggy, and crossed by ravines and dotted with lakes, the water of the lakes being formed from the melting snows of the

late winter, and also from the ice itself after the snows have disappeared before the warmth of the summer's sun. I have even bathed in such a lake, although I am glad to say but once, and that was in "those days of other years" when the youthful insanity is strong to say "I have done it," a disease which I believe to be amenable only to that treatment popularly known as "sad experience." Skating on an iceberg lake is far more satisfactory and sensible.

Such are the general features of the iceberg, as they are to be seen every day in the Arctic waters.

Let us go back now to the ice-stream of Auk-pad-lar-tok, with which we closed the last sketch. Here we saw an iceberg leaving its hold upon the land, breaking loose from the parent stream, and restoring to the sea its own again. I would once more call attention to that ice-stream, and show more particularly its river-like character.

I have spoken of the long line of the glacier front, stretching away to the opposite shore, in glittering white and blue and green; but it was not an unbroken front. Near its center there was a dark rock, nearly imbedded in the ice—the ice being on both sides of it, and overtopping it.

This rock had been an island. The ice-stream, pouring out into the fiord, had at length touched this island, and encroaching more and more upon it from year to year, molding itself to the rock, had finally attained the position which I have described.

I asked the guide, Philip, if he had observed any change in it during the period of his residence in the fiord.

"Oh, yes," said he, "a very great change. When I first came here, I could pull all the way around the rock in my boat."

"How far was the rock then from the face of the ice-stream?"

"A good half English mile."

"How long was the rock?"

"At least as long as the distance was from the ice-stream."

"How did you learn all this?"

"I have gone to it many a time, and have brought away from it many a barrel of eggs, and many a bag of eider-down."

Making all proper allowance for the general disposition of people to magnify distances, here is yet a most valuable observation—a mile of flow, according to Philip, in five-and-twenty years—almost

seven inches for each day. My own observation of an ice-stream, continued through almost a year, showed, as has been previously stated, a daily rate of four inches. Suppose Philip to have even doubled the distance in his rough guessing, we have still a rate of flow equal to three inches and a half per day. An inspection of the numerous breakings from its front shows that it must have been considerable indeed, judging from the great numbers of icebergs that were scattered down the fiord, all of which were its children. Many of the largest of them had lingered in the fiord ever since Philip came there. Missing the deepest channel, they had grounded, and held on for years and years, until they had been gradually reduced by melting, and by pieces breaking from them, but never yet were small enough to tide over the rocky bottom and reach the sea outside. I looked upon these "ancients" with much reverence.

But hark ! what was that ?

We still stood upon the summit of the bluff, overlooking the fiord and the ice-stream.

The ice-stream had been constantly emitting sounds, as I have said before, sometimes by the breaking off of a small fragment from its front, sometimes

by a partial crack opening far up in the body of it, as it strained in its rocky bed; but now a loud report, as of "deep-mouthed thunder," broke from its profoundest depths—seemingly, indeed, as if from the very bowels of the earth. It fairly shook the ground on which we stood.

Philip said, quietly, "The ice-stream is going to calve."

An instant afterward the report was repeated, louder and still more startling. The shock beneath my feet was more sensibly felt: it seemed like the first warning cry of a coming earthquake.

Philip said again, "See! it is rising."

A portion of the glacier was being lifted up by the sea. A great wave was rolling back with this movement of the ice, and was dashed wildly against the ice in front.

An instant more, the sound, which was before so deep and loud, now broke through the air with a crash that was almost deafening—as when a heavy gun is fired near by.

I knew that a monstrous crack was opening in the ice-stream.

The position of the crack was soon seen. A fragment, of enormous proportions, had been disen-

gaged. Its front raised itself aloft as if it were some great leviathan endowed with life, and while it rose the crack opened wide. The unwieldy mass plunged forward, crashing against other ice-masses, scattering the broken fragments to right and left with irresistible force. Then the inner side rose up, and the front sank down, while vast volumes of water that had been lifted with it went roaring and hissing over its sides into the foaming and violently agitated sea.

Thus an iceberg had been born.

It would be impossible, with mere words alone, to give any adequate idea of the action of this new-born child of the Arctic frosts. Think of a solid mass of ice, a third of a mile deep and more than half a mile in diameter, hurled like a mere toy into the water, and set to rolling to and fro by the impetus of the act—as if it were Nature's merest football—down one side, until the huge mass was nearly capsized ; then back again and down the other side, with the same unresisting force ; and so on, up and down, swashing to and fro, for hours, before it comes finally to rest. The disturbance of the water was inconceivably fine ; waves of enormous magnitude were rolled up with great violence against the gla-

cier, covering it with spray ; and vast billows came tearing down the fiord, their progress marked by the crackling and crumbling of the ice, which was in a state of wildest agitation throughout a space of several miles. Over the smaller of the icebergs these billows broached completely, breaking as if a tempest were piling up the waters, and heaving them with infuriated might against a rocky shore. Then, to add to the commotion thus made, the great wallowing iceberg that was the cause of it all, was dropping fragments from its sides with each oscillation, the reports reaching the ear above the general din and clamor. Then other bergs, as they were successively set in motion by the waves, also dropped pieces from their sides ; and at last, as if it were the grand *finale* of the piece—the clash of the cymbals and the big bass-drum of Nature's grand orchestra—a monstrous berg, near the middle of the fiord, split in two, and, during the noise of moving waters and crumbling ice, filled the air with a peal that rang among the bergs and crags, and echoing from hill to hill, died away only in the void beyond the mountain-tops ; while to the noisy rhythm the huge monsters of the fiord danced their wild, ungainly dance upon the waters.

It was many hours before this state of wild unrest was succeeded by a calm ; and when at length the iceberg that I had seen born came quietly to rest, and the other icebergs had ceased their revel on the troubled sea, and the billows had stilled their lashings, it seemed to me that, in beholding this birth of an iceberg, I had beheld one of the most sublime exhibitions of the great forces of Nature. It was indeed a convulsion !

My purpose being now accomplished, and my curiosity satisfied, I left the bluff, and returned down the fiord to Philip's hut, whence, after leaving my guide, I proceeded to Upernavik, well content with what I had seen, and feeling well repaid, halting by the way only long enough to inspect closely one of the largest icebergs in the fiord, and around which I lingered many hours.

This berg was not only remarkable for its great size, but for its great variety of feature. We rowed all the way around it, and measured it carefully. One of its sides was nearly straight and regular, having the appearance of being broken away from something. It had a fracture-look. This was evidently the side which was attached to the glacier. Facing the sun, it glistened marvelously. This

side was six thousand five hundred feet long. At one end, it was two hundred and forty feet high, rising squarely from the sea. At the center, the height was less, being only a hundred and sixty feet. At the farther end, it was a hundred and ninety. These measurements were made with as much accuracy as was possible under the circumstances, and they are quite reliable within small limits. The log-line and chronometer were of necessity the means of determining the length. By dropping the "chip" at the foot of the berg, and then rowing out a hundred fathoms, I obtained a tolerably accurate base line for ascertaining the altitudes—a pocket sextant giving me the necessary angles. By the same method I found the end of the berg to which we came, after measuring the side, to be eighteen hundred feet across. This terminated in a rounded bluff. Turning here, we came upon a side wholly different from the one we had before measured. It had evidently been for a long time the glacier front—for a period of perhaps fifteen or twenty years at the least. It was most irregular. In places it was cliff-like, as the other, but for the most part it was worn into all sorts of irregular shapes. This had been done partly by the wash-

ings of the sea, and partly by the streams of melted snow which, in the summer-time, poured over the glacier front. Thus there were bights eaten into it that were large enough to float a frigate. In one place there was a considerable bay, with two islands in it that were very peculiar. Around this bay we pulled, and in the valley or rather gorge, at one angle of it, I landed, and, with sharp spikes in my heels, and a boat-hook in my hand, I climbed up to the summit of the berg. Its surface was rolling, uneven, and craggy. There were two conspicuous hills upon it, one of which was two hundred and ninety, the other two hundred and seventy feet above the sea-level. Between these hills, and among others less conspicuous, I discovered a winding lake at least a quarter of a mile long—the water being formed from the snows of winter, which, melting with the summer's sun, had trickled down the icy hill-sides and gathered in the valley. Following along the margin of this singular and beautiful lake, I came at length to its outlet, where, through a gorge, poured the superabundant crystal waters over a crystal bed, in a rapid torrent, until, coming at length to the side of the berg, the stream leaped wildly down into the ocean, roaring like a young

Niagara. On every side, indeed, there were streams, many of them very small, hurrying to the ocean, and dropping from the roof of the iceberg like the waters from a house-top on a warm day following a heavy fall of snow.

I wandered about among these icy hills until I really grew bewildered, and found my way to the exact place of my ascent, not without embarrassment. The cause of this was thus partially explained : I had kept my eye upon the sun, while the iceberg was turning round beneath my feet. It had probably grounded on one corner, and the current was slowly swinging it around upon a pivot. Before this, however, I had climbed the loftiest hill. The view was superb—distant, as from the summit of Staten Island, and over a sea where icebergs lay scattered like mammoth diamonds set in a waste of *lapis lazuli*. Nor was the neighborhood devoid of life. A flock of kittiwake gulls flew up from the sea, and perched themselves upon the hill, and there set up their noisy chatter ; and one old “burgo-master,” who had caught a fish, came there to swallow it in peace ; but, to his evident surprise and sad disgust, he was suddenly pounced upon by a predatory “jager,” who had seemingly been hover-

ing round for just such a chance, and with an angry scream the "burgomaster" dropped the prize.

It was altogether a strange sensation—afloat at so great an elevation, on an ice-mountain in the sea. Yet my footstool was firm and solid as the eternal hills.

If time and circumstance had permitted, I would gladly have brought up my tent and camp-fixtures, and have slept and lain there for a day or so, watching the grand panorama of the hills and sea around, while the sun, like a golden wheel in the blue sky, rolled round and round me, never setting, but changing from hour to hour the aspect of every object within the range of vision—now silvering an iceberg, now coloring it, now flaunting it in blue and now in green; now blazing with red the ragged cliffs of the fiord, now throwing them in shadow, as if they were the gloomy wall encompassing the abyss of Dante's giants; now gilding the distant mountains, now robing them in purple; now whitening the far-off ice-sea, now making it a sea of rubies, then blending it with the blue sky.

But this camp-life on an iceberg could not be, so I returned to my boat, and continued my survey of the floating mountain. First I explored the bay

where I had landed. The bottom of this bay was the sloping ice, shoaling gradually as we went farther in through a distance of a hundred yards ; and, as I looked down over the side of the boat upon the ice beneath, through what was at first a few fathoms, but finally only a few inches of water, I thought I had never seen so soft and exquisite a color, or one so perfectly graduated in its various tints, as the liquid green through which we sailed. The islands in the bay, which I have spoken of before, were but two hummocks that rose a few feet above the surface—as Governor's Island and Ellis Island in New York harbor.

Leaving the bay, we continued our course past broken-down turrets and dismantled towers and ruined spires, between which lay huge clefts filled with a deep cerulean light, and great caverns of cimmerian darkness, in which the slow-moving billows were caught and confined, until, tired of their imprisonment, their hollow voices came gurgling out, as the loud breathing of some mighty monster of the deep, who was exhausting his feeble efforts to move the giant mountain from his path.

This side was six thousand feet in length. The other end was thirty-five hundred. Thus, in mak-

ing the complete circuit, we had pulled almost three and a half miles. I averaged the whole altitude at a hundred and eighty feet above the sea-level. This would give a total average depth of fourteen hundred and forty feet—between a quarter and a third of a mile. Multiply these dimensions together, and we get 23,850,000,000 of cubic feet. Convert this into tons, and all the ships in the known world are nothing to it. Freight them all, and you would hardly make an impression upon it. Convert it into money, and, at the present market rates for the skimmings of the Boston ponds, you have the national debt and more.

It is only by such figuring that we can form anything like an adequate idea of the enormous magnitude of this vagrant of the polar seas. Its beauties are not so easily defined. A solid and a mighty, it is yet a subtle object. The light plays through it as through the opal. Its side is blazed with crimson and gold and purple. Here we see the emerald, there the chalcedony; transparent quartz in one place, sapphire and the flashing ruby in another.

These varying colors, as seen in the sunlight, are due in a measure to its parallel lines of stratification, which are faintly perceptible, and which, like the

multiplied rings of the old forest oak, during the long period of years or ages through which it has gone on slowly and steadily forming in the parent glacier ; partly to the irregularities of the fractured surface, the myriad of reflecting faces placed at all angles to the sun and to the light ; partly to the sunlight, dissolving in the sharp prisms of its sides, and stealing through the mist and spray of the falling waters, flinging here and there the tender colors of the rainbow along the pure, clear surface of its glittering walls ; and partly to the waters of the sea in which it floats—sometimes green, sometimes blue, always wondrously clear, and always mirroring the giant that it floats—its sublime proportions, its crumbling ruins, its cascades, and the light which flickers round it—while bearing it aloft in triumph, and while the laughing waves, encouraged by the sun, leap round and kiss it gently, and with each touch steal away the crystal particles which were theirs of old, and are theirs of right.

More than this I cannot say for the floating mountain. Words fail us utterly in the description of such a mighty work of Nature—fail us, as do the colors of the painter. Who can paint, or who can describe the leap of Niagara, or the roar that rises

from the crystal abyss? The iceberg, in its growth and birth and immensity, is the nearest parallel.

And what pen can describe, or pencil paint its age? How long since its crystals were snow-flakes dropped from the air upon a Greenland mountain top? It was not a few years, or even centuries ago. Its existence on the earth in the great ice-sea and stream has been longer than that of the whole human race, from the birth of Adam.

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#### NOTE TO PAGE 123.

I have said that the icebergs come from Greenland—not, however, that glaciers are not found on other Arctic lands; but, so insignificant are they in comparison that they might seem scarcely to deserve the name. The fragments that break away from them are few in number and of trifling dimensions. The large icebergs found on the Labrador coast reach there from Greenland, under the pressure of easterly winds of long duration, and not from any part of America, and are thus thrown, early in the spring, into a strong southerly current, which carries them to the Newfoundland Banks. Thus may we account for their frequency or infrequency in the track of ships during different years; for the current along the west coast of Greenland sets north.

So far as observation extends, glaciers proper terminate on the west or American side of Baffin Bay, at Hayes Sound, which runs westward from Smith Sound, between latitude  $79^{\circ}$  and  $79^{\circ} 45'$ , separating the Ellesmere Land of Admiral Inglefield (discovered in 1852) from Grinnell Land, of my own discovery, in 1854, and which I subsequently traced in 1861 to latitude  $82^{\circ} 30'$ , without observing anything like a real glacier. This may be found difficult of explanation; but it is well known that glaciers have never been observed on mountains of limestone formation, of which Grinnell Land is mainly composed. Spitzbergen presents a splendid array of glaciers, but their discharge by iceberg is not large, and may scarcely be said to exist at all, in the Greenland sense, since the glaciers there, instead of, as in Greenland, pouring into the sea, mostly reach the summit of great cliffs, where huge masses tumble from them into the water. In this connection I cannot do better than to quote from Lord Dufferin, who, in his admirable book, *Letters from High Latitudes*, thus writes:

"These glaciers are the principal characteristic of the scenery in Spitzbergen; the bottom of every valley in every part of the island is occupied, and generally completely filled by them. \* \* We ourselves got a view—though a distant one—of ice-rivers, which must have been most extensive; and Dr. Scoresby mentions several which actually measured forty or fifty miles in length, and nine or ten in breadth, while the precipice formed by their fall into the sea was sometimes upwards of 400 or 500 feet high. Nothing is more dangerous than to approach these cliffs of ice. Every now and then huge masses detach themselves from the face of the crystal

steep, and topple over into the water; and woe be to the unfortunate ship which might happen to be passing below. Scoresby himself once actually witnessed a mass of ice, the size of a cathedral, thunder down into the sea from a height of 400 feet"—a mass which, in the Greenland waters, would be the merest pygmy, and would not be called an iceberg, though the avalanche must have presented a grand and startling spectacle. No large icebergs can be discharged in this manner..

THE END.









